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THE SELECTION, RETENTION, AND PROMOTION OF
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GENERAL ANNOUNCEMENTS

ANNUAL MEETING.—The next annual meeting will be held at the University of Pennsylvania Friday and Saturday, December 31 and January 1, in connection with the American Association for the Advancement of Science. Reduced transportation rates will be available. Fuller information will be published in the November *Bulletin* and circulated to officers of local chapters.

In view of the length and importance of the report of Committee G on The Selection, Retention, and Promotion of Undergraduates, the remainder of the present *Bulletin* is devoted to that report; other material in hand awaiting the November issue.

EDITORSHIP OF THE BULLETIN.—While it has not yet been found practicable to organize the editorial committee provided for at the last annual meeting it has fortunately been possible to secure the cooperation of Professor Joseph Allen, of the College of the City of New York, as Associate Editor, beginning with the present issue.

THE SELECTION, RETENTION, AND PROMOTION OF UNDERGRADUATES

REPORT BY COMMITTEE G¹

I

THE SELECTION OF UNDERGRADUATES

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¹ Committee G is the Committee on Methods of Increasing the Intellectual Interest and Raising the Intellectual Standards of Undergraduates. The present report was prepared by a sub-committee, composed of Professor Bender of Princeton, Chairman, and Professors Cutler of Smith, Hazlett of Illinois, and Root of Princeton. In its final form the report includes modifications resulting from suggestions made by other members of Committee G. The previous publications of the Committee, all in the *Bulletin*, are as follows:

1. "Survey of the Field of Work," February, 1922 (VIII, 60-69).
 2. "Initiatory Courses for Freshmen," October, 1922 (VIII, 350-380).
 3. "Sectioning on the Basis of Ability," October, 1923 (IX, 275-290).
 4. "Bibliography of Methods of Increasing the Intellectual Interest and Raising the Intellectual Standards of Undergraduates," December, 1923 (IX, 385-418).
 5. "Extra-Collegiate Intellectual Service," May, 1924 (X, 272-286).
 6. "General Reading for Undergraduates," October, 1924 (X, 480-492).
 7. "The Preceptorial or Tutorial System," November, 1924 (X, 534-562).
 8. "The General Final Examination in the Major Study," December, 1924 (X, 609-635).
 9. "Educational Relations with Alumni," November, 1925 (XI, 365-382).
 10. "Sectioning on the Basis of Ability: A Survey of Status in 1924-1925," February-March, 1926 (XII, 133-191).
 11. "Intercollegiate Football," April, 1926 (XII, 218-234).
- Reprints of No. 1 are exhausted. Single copies of reprints of the other numbers and of the present report may be had without charge on application to the Chairman of the Committee. Reprints in quantity of Nos. 2, 4-11, and of the present report may be had at a slight cost on application to the Secretary of the Association. Reprints in quantity of Nos. 3 and 10 may be had without charge on application to the National Research Council.—ERNEST H. WILKINS, Chairman.

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2. PREVIOUS THEORY AND PRACTICE

Historical.—The roots of our educational system lay, inevitably, in Europe, but as a consequence of distance in space and time, and as a consequence of the peculiar nature of our conditions, political and social, we are evolving something quite different and attempting to solve our own problems in our own way. Our first colleges and our academies were largely a transplanting from England, but they are hardly English now. Our high schools are indigenous. Our best graduate schools, our ideals and methods of scholarship and research, are, beginning with Johns Hopkins, largely German, although at Princeton and elsewhere English influences are strong. These differences in origin and purpose have given rise, not only to unique educational problems, but also to paradoxes and conflicts that are distinctly American and must find on American soil whatever final solution they may attain. This is not to say that we do not have much to learn from Europe in the comparison of methods and results. It is often asserted, for example, that our secondary schools are inferior in quality as well as quantity of scholarship and mental training to those of England, France, and Germany (147).¹ But Europe is invoked most frequently in the argument between the examination system and the diploma system of entering college or university. So far as it is necessary to our purpose, the historical development in the United States of these and other institutions and methods will be outlined below under their appropriate headings.

¹ Numbers in parenthesis refer to books or articles listed in the bibliography under the corresponding numbers.

The Purpose of the College.—At bottom, so far as our subject is concerned, rests the question as to the real purpose of the college, its obligation to society, to the state, to the individual. More particularly, it concerns the relations of the college to the preparatory school and the public school system, to industry, to the humanities, and to science. Certainly the type of candidate to be accepted by the college and the amount and kind of preparation to be required depend upon what is to be done with the candidate after he is accepted and what he is to be fitted for.¹ The debate is not new, but it has received new directions from time to time through certain impulses in our national life, such as the growth of the high school (164), the development of professional schools, the expansion of industry, "Americanization," the increasing specialization of organized society (232).

Whether conscious or unconscious, there have been, in general, three schools of thought as to the aims and methods of higher education in this country. The aristocratic school believes that advanced education is only for the few (121), that learning and culture are the prerogative of a small intellectual or social aristocracy. Such education must have no contact with the gross affairs of practical life. In its extreme form it is interested in aesthetic appreciation even more than in the search for truth, and an academic degree is a mark of caste. In its most common form, however, it does not insist upon exclusiveness for all institutions, but only for the few; and the aristocracy which it favors is an aristocracy of the mind, based upon the assumption that only a very small number of people are born with sufficient ability and taste to justify academic opportunity, and upon the principle that none should be admitted to college save those who really want intellectual training and are capable of taking it (51, 53, 86, 114, 140, 152, 211, 215, 231, 238, 242, 249, 274, 285, 305, 357).

The democratic school maintains that the chief task of higher education is not to make scholars, but to give men and women, as many of them as possible, the power to lead useful lives, to contribute to the welfare of the community, and to enrich their own inner experience (29, 56, 122, 152, 162, 241, 285, 307). Usually such education will take the form of professional, technical, or business specialization (192). Insisting thus upon direct preparation for practical life, this school tends toward the vocational type of education, stresses

¹ For comprehensive accounts of "College Aims, Past and Present," see 240 and 232.

the utilitarian, would eliminate the traditional studies that have only cultural value, and in its extreme form would make classroom and laboratory, student and teacher, tributary to industry. On its popular and political side, a side that does not frequently appear in the published or academic discussions of these questions but has nevertheless great actual influence, it would open the doors of the colleges to all who would enter or could be pulled or pushed through (246, 287). It is argued that giving education to an upwardly diminishing and ultimately small group would tend toward the disintegration of society, to the breaking up of the people into classes that would become more and more hostile to one another (54). The purpose of the educational system is to increase the average amount of education acquired by the whole people rather than to serve as a costly experimental laboratory of science for the development of exceptional minds (54).

The third school of thought is intermediate between the aristocratic and democratic extremes. As we have seen, American higher education has been, on the whole, a compromise and an adaptation of the purposes and methods which it has inherited or acquired from foreign sources, chiefly English and German (cf. 163 and 286), but entirely new problems have arisen for which it is still seeking solution. It has attempted in the same institution and in the same classes to furnish the foundations of scholarship or a cultural acquaintance with science and the humanities to the few, and a more or less direct preparation for practical life to the many. It has become apparent that it is difficult to perform both tasks successfully at the same time and place, and American education has to some extent accommodated itself to the obvious need for differentiation. But the division has taken place either before or after college rather than in it. The great mass of pupils in the public high schools have neither the desire, the ability, nor the means to justify their promotion to college (345), and, since their needs are so practical and so immediate, since their numbers are so great, and since they represent the bulk of the tax-payers, the average high school concentrates on them and meets their demands (20, 21, 34, 35, 155, 164, 200, 283, 304, 357), while the private preparatory schools have continued to care for the minority, especially in regard to ancient languages (110). With the increase in the vocational courses of the high school there has developed on the one hand a corresponding tendency on the part of the college to recognize and accept these courses, and on the other

hand a tendency on the part of the public system to organize new schools and new classes for the benefit of those who are going to college.

At the other end of college the variety of purpose is met by the increase in the size and number of professional schools for the lawyer, the physician, and the clergyman, of graduate schools for the teacher or scholar, of technical schools for the engineer, of special schools for the journalist, the artist, the business man. To this merely illustrative list must be added the private systems of training which many large corporations, like the National City Bank, General Electric Company, Standard Oil Company, and Bethlehem Steel Corporation, have established to prepare college graduates to meet the requirements of a particular business or industry. More and more all these specialized schools have tended to become entirely graduate institutions and to demand the bachelor's degree for admission. But with this has come a growing inclination to throw their demands back, not merely on the colleges, but into the courses of the colleges, so that the prospective physician or engineer must concentrate his undergraduate studies upon professional preparation at the expense of his more general and more cultural courses (10, 70). The colleges have not been able wholly to resist this pressure from the professional schools, but they have tried to meet it by the installation and multiplication of various types of degrees and courses, with, however, a stress, so far as possible, upon at least a modicum of cultural courses, especially upon such studies as English, a foreign language, or some other study whose application and bearing on the practical needs of professional life will not be so remote as to require a last-line defense.

In general, however, the college has stood as a compact, if not organic, whole, ready to prepare the student for anything, including "life." The result has been that the college has laid itself open to the charge that it prepares for nothing, not even for life. Certainly this is the heart of the problem. The college can not rationally decide what students to admit or reject until it has decided what it is going to do with the students, and why, after it has admitted them. "Raising the standards" serves little but academic vanity unless it is deliberately used to serve some better purpose. If the college has a definite aim, without too much variety, it can then reasonably determine to admit only those candidates who offer the most promise of furthering that aim, both for the college and for themselves.

The American college, standing thus, rather precariously, between the European lyceum or gymnasium and the university, between

the American high school and the professional school, is subjected to pressure from both sides, a pressure that threatens, not to crush it, but to change its character. Many colleges will accept almost any subject for admission or for graduation. But signs are not wanting of a striving for something better than a mere *modus vivendi* with the high schools and with the professional schools. By local adjustment of entrance requirements, by the introduction of comprehensive examinations and intelligence tests, by greater flexibility in the less essential subjects, by more attention to the individual candidate and his qualities, the better colleges have tried to bridge rather than to level the gap that separates them from the high schools. On the other side, if professional and technical training are left more to the advanced, specialized institutions, then the colleges can devote themselves increasingly to their real purpose, to the fundamentals of a liberal education, to the fostering of native ability, to the training of powers, including the capacity to think and to express thoughts, to the offering of acquaintanceship with the more important branches of knowledge, including in every case both science and the humanities (152), combined with a degree of concentration in some one field, the choice of which is directed by the interest and inclination of the student.¹

Entrance Requirements.—It would lead the present report too far afield to attempt to give an extensive account of the historical development of college admission requirements in the United States; especially since such accounts are readily available (35, 27, 391). The same remark applies also to the statistics that have been gathered as to the prevailing entrance requirements among the various institutions of the country (388, 9, 381, 383, 402, 406). Such statistics will be used only as occasion may require.

The chief observable fact is that entrance requirements have tended to increase in amount, in number of subjects, and in freedom of option (35). The average boy preparing now, say, for Yale, must find room for nearly two years more of work than was required sixty or seventy years ago, and he must be prepared to pass an examination much more difficult in kind (391). Until 1800 only three subjects, Greek, Latin, and arithmetic, were required for admission to any college in the United States. As late as 1870 Harvard required but three substantial subjects, Greek, Latin, and mathematics, with a smatter-

¹ For Committee G's "Tentative Definition of the Purpose of Undergraduate Education" see 7.

ing of history and geography. But between 1800 and 1870 eight additional studies found place somewhere among admission subjects: geography, English grammar, algebra, geometry, ancient history, United States history, physical geography, English composition. Between 1870 and 1875 were added physical science, English literature, and modern languages. The now prevailing "point" or "unit" system has developed almost entirely since 1897; it provides for the accumulation at entrance of a certain required number of points or units in listed and evaluated subjects of study. The number of these subjects varies between twenty and forty (27, 35), or even fifty (388).

There are indications that in the early days of American education college entrance requirements were more rigid on paper than in actual practice, but there can be no question that with the spread of preparation over so many subjects some shallowness has resulted. In 1655, we read, a student is not admitted to Harvard unless he "can readily make, speake, or write true latine in prose, and hath skill in makeing verse, and is completely grounded in the greek language" (35). It is claimed that with the increase in number and diversity of subjects since 1870 there has been no corresponding increase in the total amount of knowledge required; indeed that we may well doubt whether boys are so well trained today as they were then (261). Perhaps a truer statement would be that, viewing entrance requirements as a historic whole, an increase in absolute quantity and in number and variety of subjects has been accompanied by a loss of facility in the use of the classical tongues.

Despite its obvious nature, the fact needs stressing that the effectiveness of college work depends directly upon the entrance requirements. The ablest professor cannot impart instruction of college grade to a class of high school youths, or to college students studying high school subjects. And, as the upper classes develop out of the freshman year, the standard of that year fixes the standard of the college. If less than fourteen units are required by a college from candidates for its freshman class, a strong presumption is thereby raised that the college is devoting part of the time of its collegiate classes to instruction in subjects which, in any well organized educational system, are now left to the high schools (72).

In the determination or evaluation of entrance requirements as they apply either to the college and its standards or to the student and his preparation, three criteria are to be taken into account: quantity, content, quality.

Quantity.—Through various influences there has developed a certain academic convention as to the absolute quantity of entrance requirements for all institutions that aspire to unquestioned collegiate rank. This quantity has been frequently and somewhat variously defined (266, 267, 268), among others by the first annual report, in 1906, of the Carnegie Foundation for the Advancement of Teaching (71): "Not less than four years of academic or high school preparation or its equivalent." Fourteen units constitute the minimum amount of preparation, each unit indicating a subject studied for five hours weekly throughout an academic year. But the chief standardizing influence in the value of the unit has been the statement formulated by the National Conference Committee on Standards of Colleges and Secondary Schools and accepted by the College Entrance Examination Board (95): "A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of a full year's work. A four-year secondary school curriculum should be regarded as representing not more than sixteen units of work." This statement assumes that the length of the school year is from thirty-six to forty weeks, that a period is from forty to sixty minutes in length, and that the study is pursued for four or five periods a week. Nevertheless, despite these influences, there is still considerable divergence in the interpretation of entrance units (137).

In the actual number of units required there has been a growing uniformity, tending strikingly toward the figure 15. In 1916-17, the requirements of forty-nine State and fifty-two endowed institutions for admission to the A.B. course were as follows: Eighteen institutions required 14 units; fifteen required 14.5; fifty-seven required 15; five, 16; two, 16.5; one, 17; one, 18.5; one, 19.5; and one, 20 (388; also 406, and, especially to cover changes since 1917, 12, 35, 39, 42, 47, 52, 66, 171, 176, 205, 279, 349, 352, 365, 376, 387, 395, 401, 403, 405). The trend toward 15 has continued: in 1922, of the 305 colleges studied by the Bureau of Education, 271 required that number (11). A few colleges still required 14.5 and a few 16 units. Only one college required 14. All such figures must, however, be interpreted in the light of the number of units which may be represented by entrance conditions; that subject is treated elsewhere in this report.

Many educators have found entrance requirements too low in various quarters of the country (87, 262, 324, 326, 332, 360). At

least for several generations the general tendency has been conspicuously in the direction of higher standards, chiefly quantitative. The report of the Carnegie Foundation published by President Pritchett in 1911 gives a table showing by States the changes in requirements during the preceding decade: no State had to its credit an advance of less than ten per cent (75).

On the other hand, a number of reputable educators have believed that present college entrance requirements are too great in quantity, with the result that many able students are excluded from the advantages of college life (249, 258, 332, 404). Adolescence and rapid physical growth in the secondary school period leave little energy and power for mental effort, and the larger part of college preparation is crowded into the last two years of school, with resulting hurried and superficial work (164, 341), which fosters a careless and indifferent spirit and is not conducive to good scholarship in college (31, 114).

This leads naturally to the suggestion that the requirements be decreased in quantity and increased in quality, that the colleges lower the number of entrance units, drop some of the subjects required or accepted, and demand a higher grade of work in fewer studies (18, 331, 363, 371, 404).

Content.—Opinions differ as to the proper content of entrance requirements, but a fairly representative standard would include, say, ten prescribed units in English, foreign languages, and mathematics, with electives in history, science, and other subjects, and with the line separating required and elective subjects varying somewhat as applied to candidates for the arts and science degrees respectively (164, 200, 368). A study (406) of the entrance requirements for 1918-19 lists the subjects prescribed by 43 leading colleges. The colleges are not named, nor is distinction noted between candidates for degrees in arts and those for degrees in science. The only subject required in all is English; mathematics is required in all but 2, foreign language in all but 7, history in all but 15, and science in only 15 out of the 43. These figures agree fairly well with a much more elaborate report published by the Bureau of Education in 1920 (388). The chief value of the earlier study (406) lies in the table of elective subjects. The following are listed, the figure after each subject showing the number of colleges out of the 43 that accept it for entrance credit: physiography 28, drawing 27, physiology 26,

bookkeeping 26, manual training 24, cooking and sewing 22, agriculture 21, music 20, shorthand and typewriting 18, commercial geography 18, commercial law 18, civics 17, commercial arithmetic 11, economics 7, methods of teaching 7, machine shop 6, commercial history 4, pedagogy 4, Bible 2, normal training reviews 2, geography 1, letter writing 1. In 1920 the Bureau of Education reported (388) that the number of subjects offered by many high schools reached at least 60, and that the number of acceptable units listed by the colleges and universities varied approximately from 25 to 50.

The chief tendencies of recent years are the following (11): A reduction of a unit or a half-unit in the entrance requirements in mathematics. A considerable decrease in modern languages; not only has the number of units required decreased rapidly, but the number of colleges requiring no foreign language for entrance has nearly trebled. The percentage of degrees requiring no Latin increased from 58 in 1913 to 76 in 1922. The four-unit requirement, the most popular in Latin, decreased by one-half. Approximately 10 per cent of the degrees required Greek in 1913. In 1922 only 2 per cent required it. German and French are rarely required. There is a strong tendency toward the acceptance of not less than two units of any foreign language. Three-fourths of the degrees require social science for entrance, usually one unit. About half of the degrees require science for entrance, almost always one unit. The number of colleges accepting commercial and vocational subjects in entrance requirements has increased both steadily and rapidly, and the number of such subjects has likewise increased. Since 1900 about 50 new subjects have found their way into published college entrance requirements. In 1922 the total number of subjects listed by 273 colleges as acceptable for entrance credit was 111.

There is still wide variety in the required and permitted content of college preparation. Colleges of the traditional New England type refuse recognition to any so-called vocational subject for admission. Other institutions prescribe vocational subjects. Some colleges require Latin for entrance but do not require it in college. In several of the better Western State universities Latin is not accepted as a foreign language for entrance: the language must be modern or it may not be offered on any basis (76). Generally, the tide has been strong in recent years, especially in the West and in State universities, in the direction of accepting for entrance the modern, practical, and even industrial and commercial studies, and

the significance of the college degree as a sign of acquired culture and a mark of social status has been, more or less deliberately, lowered (67, 236). Writer after writer has signed a declaration of independence from the grip of the "dead hand of Latin" and the "shackles of an extinct civilization" that have prevented us from moving forward: other studies have greater usefulness and offer at least as much mental discipline (231, 249, 351, 357). In 1895, 98 per cent of 178 colleges and universities required an ancient language for entrance, whereas in 1914 only 48 per cent of the same institutions had preserved that requirement (231). The percentage would be lower now, but indications are not wanting of a slow turning in this tide (88). Likewise, attacks have been made against the modern languages, on the ground that their "tool value" has been much exaggerated: very few students will ever have any real use for them (299), and translations will suffice for whatever knowledge may be necessary of foreign literatures and civilizations. There have, of course, been many defenses for modern languages and for the classics, especially for Latin (34, 88, 200). In these matters, as in others, it is doubtful if the methods and aims of the State universities and those of the more conservative endowed institutions will ever be in agreement. Nor is it certain that they should be (397). The tasks that are laid upon them by circumstances and by necessity are different.

Many maintain that we do not yet know what subjects are indispensable to a liberal education and that the colleges should require nothing more specific than four years of high school attendance and the earning of a minimum number of units, accepting any subjects, even new ones, provided only that they are well taught, arouse interest, and have some educational value (67, 115, 164, 244). It is claimed that method is at least as important as matter in preparation for college (223). And there are those who seriously say that high school pupils who lack even the ability to do as much as second year work in a foreign language or in mathematics should not be denied the privilege of college training (29).

A middle ground is taken in the position that the colleges should require for entrance only what is actually necessary for the successful pursuit of the studies which the student will take in college, that both in variety and quantity the colleges now require much that is not essential preparation for college work (56, 312). In general, there has been much criticism of the lack of continuity that the

college permits between its entrance requirements and its own courses. Many of its courses repeat what it either expects or accepts for entrance, and those who have received entrance credits in history, physics, chemistry, or astronomy are not permitted to take any more advanced course than those who are entirely new to the subject (200, 345, 348). This leads once more to consideration of the advisability of decreasing the scope and increasing the depth of college preparation, of more concentration upon a limited field, of accepting, for example, only one foreign language, but requiring real ability to use it (34, 249, 283, 363).

Diametrically opposed to this position is the conviction on the part of others that the secondary school must offer the pupil contacts with a wide variety of curricular material, covering most of the larger fields of study, so as to encourage exploration and to aid him in fixing upon appropriate and congenial lines of activity in college and later life (146, 241), and to give him a broader culture (413).

Within the various subjects themselves the content of college entrance requirements has been carefully worked out and made fairly uniform by committees of the learned and professional societies most concerned, such as the American Historical Association, the American Philological Association, the Modern Language Association of America, the Mathematical Association of America, and by commissions appointed by the College Entrance Examination Board (95).

Quality.—Satisfactory quantity and content of preparation represent merely a minimum of qualification for college and indicate in themselves little more than a probability that the student will be able, perhaps with considerable difficulty, to earn his degree. But such a student is from the beginning in competition with abler, and even brilliant, students, whose records show high quality of work, as well as sufficient quantity and content, and whose advanced education bids fair to be, from every point of view, less painful and more rewarding.

Various efforts have been made in the direction of requiring quality as well as quantity for admission, or accepting quality as a substitute for a slight lack in quantity (42, 60, 86, 177, 201, 283, 409). In 1920 Yale decided to admit to examination only such as have certifying grades (113). Another proposal has been that those candidates who do not obtain grades above the lowest passing group in a certain

number of entrance points shall not be regarded as having fully met the requirements (215). Still another is the suggestion that the college shall select each year for special consideration, on the basis of mental caliber as measured chiefly by entrance examinations, the best one-fourth of the candidates for admission. To every student in this group who is too poor to go to college the institution should be able to offer a scholarship sufficient to pay living expenses for as long as the student maintains his standing in the upper one-fourth of the class (211). The chief objection to the scheme as it is proposed is that it is too inflexible. One-fourth of all candidates may conceivably mean the entire entering class. The amount of money necessary for the college to provide would vary too much from year to year. And how poor must a boy be to be too poor to go to college?

As a logical part of the growing inclination to offer special encouragement and special facilities during the college course to highly gifted students (401), there is apparent also a tendency to waive in some measure the rigid entrance requirements for candidates who have shown unusual ability and maintained a high grade of scholarship, but whose subjects of study do not exactly fit the ordinary entrance requirements (215, 216, 349, 388, 400). From the beginning Reed College has concerned itself little about the subjects offered for entrance and very much about the grade of the candidate's previous work (382). At Yale less emphasis than formerly is placed on the particular subjects of study and more on evidences of scholarship, intelligence, and industry (113).

But the chief use of quality in entrance qualifications, and one that is apt to play an increasingly important rôle in coming years, is in making selection among candidates when the number of those who have met the minimum requirements is greater than the number for which the college has adequate accommodations. One way of meeting that situation would be to raise the number of units required. That would decrease the number of qualified candidates, but it would probably lower the quality of their preparation. Another way would be to raise the passing mark, but this would make the process of elimination and selection an exceedingly mechanical one and would lose to the college many an able and promising student. A different and better conception is that the entrance requirements should continue to represent approximately the minimum amount of preparation necessary to successful pursuit of college courses, and that among those who have met those requirements individual selection

should be made on the basis of quality, as it may be revealed in entrance examinations, school record, intelligence tests, and in other ways.

Flexibility.—For the first two centuries of American higher education college entrance requirements were rigid and detailed, both in content and quantity, and there was no need of mathematical evaluation or expression of amounts. About the middle of the 19th century the elective system began to develop in the colleges, and with it an increasing degree of election in entrance subjects and the necessity of fixing a "unit" or quantitative standard of measurement. This greater allowance of election in entrance subjects was caused in the main by four factors: (1) The further expansion of the college curriculum; (2) the rapid development of the public high school; (3) the competition of the colleges for students; and (4) the development of State universities (11).

In 1920 the Bureau of Education collected, tabulated, and graphed very full statistics (388) covering the practice of 101 leading American colleges and universities regarding prescribed and elective entrance requirements. Several institutions prescribe the entire amount, but most allow elective work as part of the entrance requirements, although there are none which make the entrance work purely elective. Beyond this there is little uniformity of standards in the prescribed requirements. The number of elective units permitted varies from 0, .5, 1 to 10, 11, 12, from 0 to 80 per cent of the total number of entrance units required. There are some differences between candidates for the A.B. and those for other degrees, and the State universities allow, by at least one unit on the average, more freedom of election than the endowed colleges. For the A.B. (State), 4 and 6 elective units slightly predominate, while for the A.B. (endowed), 4 and 5 units are the most frequent figures. A survey made a few years ago (241) shows that in the West, generally, college entrance requirements are more flexible than in the East.

Usually from one to five of the larger fields of knowledge are prescribed: English, foreign language, history, science, mathematics; the average number of prescribed entrance subjects is approximately four. But since 1913 there has been a decided trend away from the larger numbers of prescribed units toward the smaller. In 1913, 26 per cent of all the degrees studied by the Bureau of Education required 9 units or less of prescribed work for entrance, while 51

per cent required these amounts in 1922. The number of degrees allowing no election decreased from 23 in 1913 to 3 in 1922 (11).

Entrance electives are classified (388) as follows: (1) Free electives; (2) semi-electives or restricted electives; and (3) group or degree electives. The free electives are usually chosen without serious restrictions from an approved list of secondary school subjects. The semi-elective is chosen from a limited number, usually two or three. It is not a mere option between two or more courses of the same type or group, as between French and German, but refers to a choice between entirely different subjects, and serves the purpose of distribution and concentration with respect to different college curricula. The group system of elective units is an outgrowth of the great increase in the number of subjects recognized by the secondary schools and by the colleges. The more common groups are English, foreign language, mathematics, science, and history. In some cases the prescribed units are considered as one group and the electives as the other group, but more frequently there are "degree groups" or "core groups" which contain both prescribed and elective subjects.

Most educators agree that there must be a certain degree of flexibility in college entrance requirements; the schools must have some freedom and some variety, and the colleges cannot expect and should not want all candidates to be taught the same subjects and in the same way. Some think that at least one-third of the work accepted for entrance should be free from restriction of any kind, and that the remainder should be unrestricted by details of subject matter or method of treatment (254). Certainly there has been a marked tendency, in opinion as well as practice, toward making the entrance requirements more flexible and adaptable (35, 48, 69, 76, 142, 164, 171, 173, 177, 231, 256, 261, 264, 312, 339, 349, 382, 388, 403). Secondary education should be intelligent, liberal in spirit, and sufficiently elastic to allow for different aptitudes in pupils and for initiative on the part of able teachers; such aims are opposed by too rigid entrance requirements (207). Curricular progress in the secondary schools depends upon curricular experimentation, and latitude for experimentation depends upon flexible college entrance requirements (241). If the requirements are rigid a high school pupil must make his decision to go to college during the early years of his high school work, otherwise it will be too late (13, 115, 164, 256). The schools should be free to choose texts, methods, and, to some extent at least, subject matter (261). The new plan of admission fixes only the gen-

eral character of the school course and permits this desirable flexibility in the course of the schools (261). Rigidity of requirements greatly increases the number of students admitted with entrance conditions (382).

There is, however, opposition to the increasing flexibility of entrance requirements and especially to the idea that it makes little difference what the candidate offers, provided he can show ability to do the work required in and by the college. All things are not of equal worth in educating youth, and there are dangers in the substitution of easy, short courses for the older, time-requiring, intrinsically valuable subjects (142, 216). A subject, such as English, Latin, or mathematics, studied over three successive years gives the student more training than a year course in each of three separate subjects of the same difficulty. In the majority of instances when no majors are required for entrance the student scatters his free electives over a large number of subjects (256). There should be at least a reasonable degree of uniformity in both secondary school standards and in entrance terms (35, 256). There is at present an undesirable lack of agreement among the various colleges (382, 388, 396).

Indeed, it may be wondered if flexibility has not already gone further than is necessary to serve all the advantages ascribed to it above. There is significance in the fact that, as the colleges have grown more liberal in their entrance requirements, the students have remained conservative in their choice of subjects, have taken advantage of but a small part of the freedom allowed them, and have concentrated on the subjects that have been traditionally considered standard and fundamental. The entrance requirement chosen by 15,000 students in 94 institutions during twelve of the last twenty years is 4.5 units in foreign languages, 3.5 in English, 3 in mathematics, 2 in history, 1.5 in science, and but 0.5 of a unit in other subjects (9).

National Uniformity.—Despite the continued confusion of practice concerning prescribed and elective entrance subjects, permitted combinations or groups, distribution and concentration, recent years have witnessed a steadily increasing uniformity of entrance requirements, a growing harmony among the colleges as to their basic demands, such as the completion of the work of a four-year high school or academy, as to the minimum quantity, as to the adoption and

definition of the entrance unit, and generally as to the technique of admission. Here is the current doctrine of a uniformity of practice which is not incompatible with a fair degree of curricular flexibility.

The tendency toward uniformity has been greatly aided by the National Education Association, the American Council on Education, the American Association of University Professors, the National Research Council, the General Education Board, the College Entrance Examination Board, the United States Bureau of Education, the Carnegie Foundation for the Advancement of Teaching, and by various organizations among the colleges and secondary schools, such as the Association of American Colleges, the Association of American Universities, the National Association of State Universities, the New England Association of Colleges and Preparatory Schools, the Association of Colleges and Preparatory Schools in the Middle States and Maryland (35, 38, 41, 49, 72, 73, 77, 78, 79, 80, 92, 93, 94, 95, 170, 239, 379, 388). The report of President Pritchett of the Carnegie Foundation in 1907 showed an astonishing lack of uniformity in entrance requirements among the 950 colleges and universities of the United States and Canada: some had no entrance requirements, although they awarded the Ph.D. degree; some required one, two, or three units; others required ten or twelve, but did not enforce the requirement; and there was a constantly growing number which set forth high standards and enforced them with care (72, 30).

In regard to entrance requirements, the two chief movements of recent years have been toward raised standards and increased uniformity. Few object publicly to the raised standards, but it has been remarked that the movement toward a general uniform system of entrance requirements tends to continue the rigidity, the lack of elasticity, the grouping together of good and poor students that prevails in the schools, and to that extent is of questionable wisdom (72). But the increase in uniformity has had so many good results, has helped so materially to raise academic standards, to make the work of the schools easier and more efficient, to improve the relations between the schools and the colleges, that it must not be lightly attacked (61). Indeed, there is no reason why the system should not, with all its uniformity, be flexible enough, both nationally and locally, to provide for the satisfactory testing and accepting of able candidates with different opportunities and different types of training, putting emphasis more on the ability and achievement of the

candidate than on the books and courses of his preparation.

The charge of rigidity, of mechanical impersonality, has been directed chiefly against the work of the College Entrance Examination Board (35). But that organization has not only set up a standard of admission to which every college must conform or explain the reason why (130), but it has also provided for the uniformity of administration which is necessary to effective uniformity of standards, and it has brought about extensive cooperation among the various colleges in these matters by establishing a place of experimentation, a clearing-house of ideas, where the experience and opinion of one become available to all and those of the many to each. Further, it must be remembered, the Board does not admit to any college. Each institution reserves the right to grade or regrade the examination papers for itself, to use them and the Board's results in any way or to any extent it sees fit, and to employ for admission as many other criteria as it wishes.

The Element of Time.—Since the majority of college students come from accredited high schools, there is an implication that the age of a student is satisfactory unless there is evidence to the contrary. Nevertheless, one-half of the State universities publish a minimum age limit, while only one-seventh of the endowed colleges mention it. For entrance to liberal arts colleges, sixteen years is by far the most common minimum, when announced at all, but a few colleges fix the age at fifteen or seventeen (388). So far as appears, no maximum age is published anywhere, but generally the colleges are inclined to prefer young students.

Many educators believe that our entire educational machinery operates too slowly, that students should graduate from college at least two years earlier than is usually possible at present (86, 203, 334), that more time is spent on preliminaries in the United States than in any other country (86, 175), that our elementary and secondary schools require about two years more than is necessary to accomplish the work which belongs to them (35, 18, 404). Statistics show that men entering college young are on the average better, both in their studies and in their conduct (175, 176). Men begin their careers too late, and the delay is at the cost of a great economic expense and waste (176, 203). Most of these references fail to indicate any specific means of lowering the average college entrance age, although they usually maintain that neither the quality nor the

quantity of entrance requirements would need to be decreased. Occasionally they demand less distribution of preparatory and entrance subjects and more concentration on the fundamentals, but this would accomplish little economy of time so long as the number of entrance units and the number of preparatory hours per week were left unchanged.

In another direction, the possibility has been suggested that eventually the college course may be reduced to three or even to two years (159) and accepted as an extension of high school preparation for the universities and professional schools (43, 100, 183, 203). At the end of such a course the student would be freed from the "credits" that have hampered him and would enjoy full academic freedom (238). The argument is that a student should be able to begin his professional education or his early business training at an age not later than twenty-one, and finish it while he is still at a plastic age (132, 154). This approximates what has been attempted by the so-called "junior colleges." But, by more concentration in the lower strata, the two years of college work still remaining might be carried on by the high school (43). In the latter case the college would tend either to disappear entirely or to emerge into the greater freedom and election of the university (183), and we would approach the German or French system of higher education (19, 159). A compromise proposal includes the establishment of two college courses, a short course of two years, perhaps leading to the degree of A.B., which should be accepted as normal preparation for professional study, and a longer course of four years, perhaps leading to the degree of A.M., which might be taken by ambitious students who do not intend to enter a professional school (99, 369).

These suggestions are approximated by a plan which President Goodnow has proposed for the reorganization of Johns Hopkins University (153). The university would cease to provide the elementary collegiate instruction ordinarily given during the first two years of the American college, and would confine itself to advanced work in certain special fields in which it has the necessary equipment. Students would be admitted after graduating from a junior college or after completing two years at a standard college. The only degrees to be conferred by the philosophical faculty would be the M.A., after, usually, three years of residence, and the Ph.D., for which at least one additional year would be required. But all requirements would be qualitative rather than quantitative.

Another suggestion has been made, chiefly in behalf of the colleges. Many if not most of the courses of freshman year are largely repetition of preparatory courses and follow more or less preparatory school methods. Would it not help the work of the college if the freshman year were relegated to the secondary school, or at least the secondary school subjects now taught in freshman year, such as freshman English, trigonometry, qualitative analysis (133, 162, 200)? It has even been proposed that all the work of the present sophomore year, as well as that of the freshman, should be done by the high school: it should take the schools only twelve years to prepare for the present junior class of college (18, 90, 152, 265, 334).

These tendencies in the American college are the result, on the one hand, of the need for professional education and, on the other hand, of the multiplication and improvement of the high schools (7). Some of them are already, in some measure and in some quarters, operative. In a number of colleges the curriculum has been reduced to, or made possible of accomplishment in, three years. In others the curricula have been telescoped so as to provide for a shorter combined academic and professional course. In still others a distinction has been made between the so-called junior and senior colleges, drawing the line at the end of two years. And in some cases there is a strong movement to lop off entirely the junior college (7).

Relaxation of Requirements.—A certain legitimate, or at least defensible, acceptance of entrance quality in lieu of quantity has already been touched upon. But colleges often make to schools and candidates other accommodations that are not announced in their catalogs. In some institutions there is a wide gap between actual practice and published theory (72, 388), although the latter sometimes contains some such blanket provision as "gauging the capabilities of each candidate" (72). Even in more law-abiding colleges the entrance requirements are not strictly enforced, and applicants are enrolled as special students, or accepted on trial or probation with waiving of one or more entrance units, or admitted with entrance conditions, or with other concessions (66, 72, 73, 87, 141, 144, 165, 167, 168, 171, 174, 215, 279, 289, 382, 383, 387, 388, 410). The temptation to laxity is especially strong in institutions dependent upon tuition fees (73) and in those which overstress the element of enrolment numbers in their rivalry with other institutions. The returns of a questionnaire sent to the colleges on the accepted list of the

Carnegie Foundation indicate that over half of all the students admitted to those colleges that admit on examination only were in arrears to the amount of practically a whole year of high school work; and that many institutions which admit by certificate also accept a large percentage with conditions (74). It must be added, however, that this was in 1909, and that while the situation is still bad enough it is not nearly so bad now as it was then.

Once a student is admitted there is some tendency to forgive his deficiencies; otherwise, being usually a weaker brother, he could hardly go on under a double burden of school and college work (74, 233). When such admissions are large in number the efficiency of the entire college suffers. Common humanity demands consideration for the ill-prepared student whom the college has accepted and who is doing his best, and the progress of the classes is accommodated to him (13, 74). The fault is not so much in admitting with some irregularity, or as a special student, an occasional candidate because of his maturity and his interest in gaining a mastery of particular subjects, but in admitting those who on account of immaturity and poor preparation cannot satisfy the regular entrance requirements (168, 215, 279, 333). It is not wise to let a student undertake a more difficult task when he has not finished the previous task (258). It increases the amount of secondary school work done in college (171). No applicant should be admitted concerning whose qualifications there is even a little doubt (48). No student, conditioned or otherwise, should be admitted with less than fourteen or fifteen units of actual achievement (15, 237, 333). But it is not considered an evil to accept candidates who have failed by only a small margin to meet the requirements, who have atoned for that margin by high entrance marks in other subjects, and who measure up well under the headings of school record and personality: quality may always make up for a slight lack in quantity (60, 283, 409).

Entrance Conditions.—The most common and perhaps the most pernicious form of relaxation of entrance requirements is the admission of students with, sometimes several, entrance conditions, a practice which is occasionally, but erroneously, viewed as an exclusive evil of the examination system of entrance (74, 89, 195, 273). This imposes a double handicap on the student. It indicates that he is not properly prepared, to start with, and then it imposes more work upon him, to remove his conditions, than the well pre-

pared student has to carry. The result is often disaster, and through no fault of the student except that he was too ambitious. The presence of students thus prematurely admitted leads to modification of instruction, results in lower standards for the whole institution, and works serious injustice to their unconditioned classmates (382).

Statistics published in 1920 by the Bureau of Education (388), covering 51 State and 50 endowed colleges and universities, showed that of those numbers 13 State and 26 endowed institutions make no public statement regarding admission with conditions; 8 State and 5 endowed colleges admit conditioned students without specifying the exact number of units which may be thus covered; others vary from 1 to 5 units, the average and most common number being 2 units of condition. These figures must, of course, be interpreted in the light of the total number of units required for entrance. Thus, the one college that permitted 5 units of condition required the highest number, 20 units, for entrance. The minimum number of entrance units accepted by any college on the above selected list, after full allowance has been made for conditional units is 11.5; the best colleges now require at least 14 units to be actually completed before entering college (382).

And, indeed, the situation generally has been improving in this respect. The above report of the Bureau of Education was based upon the college catalogs of 1916-17. At that time, out of 101 colleges and universities of the better sort, only two definitely prohibited admission with entrance conditions: Chicago and Leland Stanford (388, 255, 356, 382). To this number have since been added, one by one, Dartmouth (317), Johns Hopkins, Cincinnati (315), Reed (398), Minnesota (382), and many others. Except in unusual cases, all new plan candidates at Harvard, Princeton, and elsewhere are either rejected or admitted without conditions (168). In 1922, forty per cent of the 232 colleges studied by the Bureau of Education refused to admit students with conditions (11). There is a general feeling that the number of conditional units permitted at entrance should be strictly limited, if not reduced to zero (363).

Special Students.—Special students, readmitted students, and students transferred from other colleges form three categories of exceptions to the ordinary methods of college admission. They are often not formally provided for in the catalogs, are handled individually and more or less on their merits, and are given practically

no discussion in the literature examined by the Committee. All three tend to become side doors if not back doors to college, and they belong under the caption of relaxation or flexibility of requirements rather than under that of (regular) methods of entrance. They deserve at least passing mention, if for no other reason, because these special and properly exceptional privileges have so often been unwarrantably extended.

Many applicants whose entrance examinations or school certificates were inadequate have been admitted to the benefits of the college and carried on its rolls as "special students" or "partial students" or "incidental students" or "students on part time" or "students not candidates for a degree." Many a husky illiterate has been permitted, for a year or two, to divide his time between the football field and two or three college courses of high school or vocational type. Everyone knows of many glaring concessions to incompetents, and if complete statistics were available they would doubtless be impressive and, in some quarters, embarrassing. Of late, however, these abuses have markedly diminished, especially with the increase in the total number of candidates and with the tightening of eligibility rules in athletics.

But there is, of course, no need to pour every ill-favored child out with this bath. College admission must always be administered with some flexibility and with rational sympathy, and unusual consideration must always be given the unusual applicant. There is the mature and serious student with irregular preparation who has a special and legitimate need for this or that undergraduate course. There is the ambitious student at law school or theological seminary, largely self-taught perhaps, who wants to extend his background by extra courses at a neighboring college. There is the boy with good mind but poor heart or eyes who requires six years instead of four to complete his college course. All such cases must be handled outside of the usual rules and on their merits. Perhaps no rule should be made for them beyond the elemental one that a student who has failed out of college shall not be allowed to continue, or be readmitted, as a special student.

Readmission.—The student who is dropped from college for deficiencies in his studies either abandons academic life for some other pursuit, or goes to a professional school which does not require the bachelor's degree for entrance, or attends some other college, or is

readmitted to the college which has dropped him. In the last event, the usual practice has been, at least until recently, to readmit the dropped student upon application, usually after an absence of a term or a year, and usually with the loss of class standing. But there were obvious evils in this practice. The term or year away was apt to represent an almost complete economic and academic waste. The absence in itself offered no assurance of better work after readmission, and the college concerned itself little with what the student had done during his absence or how he had done it. The only merit in the practice was that it gave the indifferent and complacent idler first a jolt and then a second chance. There are no statistics available covering the results of this second chance, but observation indicates that the student who has failed once is very likely to fail again or at best do barely passing work. Occasionally, to be sure, a potentially good student is saved by this process, and the shock of dismissal and absence awakens his application, if not his powers.

The idea has been gaining ground that a student should be given a thorough trial and an opportunity to repair a moderate degree of deficiency before he is dropped from the college and that then if he is dropped he should be dropped for good. His second chance is given him before final dismissal, not after a temporary dismissal, and consists of an official warning as to his danger, placing him on probation, excluding him from participation in extracurricular activities, postponing his graduation, or some other method of bringing him to a realization of the peril of his ways. If then the student is dropped, he is not again admitted, unless perhaps he can make out a strong affirmative case for himself by the presentation of evidence that he has experienced a real change of heart, such as high interim grades at another institution. Logic strongly indicates such an attitude, except possibly in the State university or the struggling small college, where the question tends always to be, Is there any reason why the candidate should be excluded? rather than, What justification can he offer for his admission? It is hard to defend the readmission of a student with a poor college record if his readmission means the exclusion of a candidate with a good school record—and it does mean that already in some colleges. When the alternative is thus squarely presented, the only possible argument in favor of the applicant for readmission is the sentimental one that he has once been a member of the college and has prior rights.

Transference from Other Colleges.—The question of the acceptance of students of one college by another concerns our problem in two chief respects (168, 180, 216, 290). In the past it has frequently been possible for a student who has been dropped for academic deficiencies to find a welcome in another institution. And it has been possible for an inadequately prepared student to obtain admission to a college with high standards by first enrolling in a less exacting institution and after a year or two getting transferred on his academic record and without examination; indeed this has often been used as a deliberate means of avoiding entrance examinations. Both of these evils have tended markedly to decrease in recent years. The more complaisant college does not enjoy the reputation of being a place of refuge for the cast out students of other colleges, and the stricter college is dissatisfied with the work done by students who have avoided rather than met its entrance requirements. Actual figures are at hand only for Princeton (291, 295). Just before the war Princeton admitted in one year 342 new students from other colleges. In 1920–21 the number was 301; 1921–22, 118; 1922–23, 88; 1923–24, 40; 1924–25, 26. The last and smallest figure was the result of as many as 343 letters received relative to transfer from other colleges.

There is a growing inclination to refuse admission by transfer to either the freshman or the senior class: the beginner should apply directly to the college which he wishes to enter, and a degree should not be expected from one college when three-fourths of the work has been done at another which the applicant himself presumably considers inferior. And transfer to the sophomore or junior class should be granted only to high-stand students who can meet all the requirements, in quantity and in quality, in admission and in course, of the college to which they wish, for some good reason, to transfer. The regulations at Princeton are illustrative of this general point of view (290):

“(a) An applicant for admission from another college must present a letter of honorable dismissal from the president or dean of that college.

(b) Admission to the freshman class is granted by examination only, and not by transfer from another college.

(c) Admission to the sophomore class is granted only to an applicant who shall have maintained a high standing in the college from which he desires to transfer, and who shall have met Princeton's

full entrance requirements by examinations of the College Entrance Examination Board.

(d) Admission to the junior class is granted only to an applicant who has maintained exceptionally high standing in the college from which he desires to transfer.

(e) Applicants from other colleges are not admitted to senior standing.

(f) In case of transfer an applicant's credits for courses taken in the college from which he desires to transfer are accepted only in so far as these courses are equivalent to the courses given at Princeton."

Mr. H. L. Mencken (245) advocates for America the custom that prevails in Germany of moving freely from one university to another without loss of time or credits. But what works there, with standardized State universities, would not work here with our myriad of heterogeneous institutions. Moreover, our university students are mostly undergraduate, theirs are more graduate in type, older, and more mature. And, as Mr. Mencken says, our experience with the elective system has made us cautious. There is some migration among our graduate students, but whatever exists among our undergraduates is not motivated, as it usually is abroad, by a desire to study a particular subject under a particular scholar.

Methods of Entrance.—A study (388; see, further, 11) of entrance requirements, published by the Bureau of Education in 1920 on the basis of the college catalogs for 1916-17, shows the following methods of admission:

1. Examination of the student in all the specified entrance subjects at the college or university itself. In 1917, of the 101 institutions included in the study, 50 out of the 51 State universities and 49 out of the 50 endowed colleges admitted on examination at the college.

2. Examination in the specified entrance requirements elsewhere than the college or university, under the direction of an approved examining board, such as the College Entrance Examination Board or the New York State Board of Regents. Eleven State institutions and 35 endowed accepted the examinations of the former board, 5 State and 16 endowed accepted those of the latter board. The number of institutions accepting this method of admission has materially increased since 1917.

3. The presentation of certificates from properly accredited secondary schools, such as are approved or accredited by the North Central Association of Colleges and Secondary Schools and other similar accrediting organizations. All the State institutions and 45 of the endowed accepted certificates of accredited secondary schools.

4. Part certification and part examination. One State and two endowed.

5. Presentation of diploma from an approved normal school. Ten State, one endowed.¹

6. Presentation of diploma from an approved high school. See 3, above.

7. Presentation of a State teacher's certificate of the proper grade. Three State, one endowed.

8. "Comprehensive plan of examination," or the "new plan." Ten endowed.

9. Under special circumstances an entrant of sufficient age and experience may be allowed to do regular college work on probation. If successful, he may be allowed to graduate. Example, Harvard. This category includes all special or unclassified students.

10. To these should now be added intelligence tests, which at certain colleges and under certain conditions have recently been used in partial substitution for the usual means of admission.

Certificate versus Examination.—Few subjects in American education have been debated so warmly and so voluminously as this. Even the followers of the middle path who are willing to accept students equally by examination and certificate, or by a combination of the two (164), must take side against those who hold that only the one or the other is a fair test. Until 1870 the only gate to the college was some form of examination (35, 184). In 1871 the "accrediting system"² was introduced by the University of Michigan. After five years' experience a local committee found that those admitted by school diploma averaged higher in college than those admitted by examination. But the value of this conclusion has been questioned (275). At any rate, twenty or twenty-five years ago the accrediting system was rapidly spreading from the West to the East

¹ Corrected figures. Here, as elsewhere in this comprehensive and valuable Government report, there is some inaccuracy.

² An effort has been made (35) to distinguish in terms between the "diploma system" and the "certificate system" by ascribing to the former initial examination of the school and periodic inspection by the college, the awarding of the privilege for a limited period, and its possible revocation; whereas the latter system fails to provide for inspection and periodic visitation.

and it looked as if the method would become universal (184, 391). Since then, however, especially with the growth of the College Entrance Examination Board and the continued conservatism of the larger endowed universities, the tendency has met some resistance save in the West and in the State universities. In 1914 Isaac Sharpless said that so far as known the only colleges requiring entrance examinations of all candidates were Harvard, Yale, Columbia, Princeton, Bryn Mawr, Haverford, and two or three technical schools (343). To this list have since been added Mount Holyoke, Smith, Vassar, Wellesley, and others, but the numerical proportion of such institutions to the total is still very small.

Some colleges that had entirely or partially abandoned the certificate method attempted for several years to admit only or chiefly by their own entrance examinations, but the system was cumbersome, expensive, and unfair to the candidates who lived at some distance from the college. These difficulties have been largely obviated by the College Entrance Examination Board (92), which is representative of the best collegiate opinion in its standards, and which is able to examine simultaneously in most parts of the country, with maximum efficiency and minimum expense, so that now the question of certificate versus examination may be argued more nearly on its merits.

Each side of the debate offers both a defense and an offense. Perhaps the earliest objection to entrance examinations grew out of the humane consideration that the long hours and days of physical and mental tension, often accompanied by heat and other discomfort, are a severe ordeal for immature bodies and minds (14, 275). But many other arguments against entrance examinations followed. They are an inadequate test and cover only one of many requisite things (28, 141, 260, 384). They test memory rather than ability to think or to reason (141, 157, 159, 233, 283, 310, 384). They test knowledge and not appreciation (141). Only the verbally expert can pass (141). They encourage cramming (14, 233, 283, 371). They force the schools to specialize in the kind of work that the college requires and to neglect other matters which may be more important in the task of the schools (14). They tend to direct teaching toward ability to answer a certain limited type of question in a short time (141, 371). They introduce the element of gambling into educational work (371). It is bad for both teacher and pupil to have to work constantly with the examination papers in mind (141, 283, 285, 310).

They make the entrance requirements too minute and specific (141). They are apt to emphasize some pet theory of the examiner and not test the candidate's knowledge as a whole (283). As they were formerly, and are even now, frequently conducted, they were "chiefly bundles of eccentricities of one or two superannuated professors, full of tricks and puzzles, appealing to memory and guesswork" (35). They inflict a heavy burden upon the college (260). They should not be given by any authorities except those of the school (310). They are unfair to both teacher and pupil in that, unlike the college's own examinations, they cover four years of work instead of one year or one term (46, 183). Any moral effect that the examinations may have upon the student can be obtained just as well inside the school (14). There is no satisfactory evidence that students admitted by examination do better work in college than those admitted by certificate (46, 218, 275).

On the same side of the debate, it is maintained that the certificate or diploma system, chiefly by reason of the necessary visits of inspection to the high schools, brings about a spirit of cooperation and relationship which cannot fail to be helpful to both college and school (14, 35, 260, 408). This is the argument that is most quoted and stressed. Some advocates of the system admit that it has failed in the past, but believe that the failure has been one of administration only, that the idea and indeed the system itself are fundamentally sound (273, 371). The arguments in favor of the diploma method are about as follows (35, 251, 260, 275, 310, 408): It minimizes the labor of college officers in preliminary examinations. Inspection of the schools by the colleges makes more intimate the relation between the two classes of institutions. The pupil's promotion from school to college is a natural one. The responsibility for the pupil's preparation rests where it belongs. It is the most adequate and the fairest test of a pupil's fitness for college. It is fairer even to those who are not going to college, for it relieves teachers from coaching for entrance examinations and enables them to devote proper attention to "the deserving majority." It secures a better grade of students for the college. A favorable report by the inspector is highly prized by the school, and the desire to obtain or retain it is a constant stimulus. Visits to the school by the inspector arouse the pupils' interest in higher education and sometimes result in their decision to go to college. It is illogical and, elsewhere, unusual that one institution should examine a student on work done in another insti-

tution, and the college should accept the diploma of the secondary school as the university accepts that of the college.

On the other side of the fence, many writers have pointed out the dangers and evils in the diploma system. The mainstay of this method of admission is the inspection of the schools, their courses, standards, organization, and general efficiency (206), but such inspection cannot be uniform and thorough, and often it is little more than a formality (35). A survey of the accrediting systems of various State universities, reported by the United States Commissioner of Education (391), shows that the schools may be examined and certified by an inspector, or by a committee of the faculty, or by the State board of education (184). Often there is no inspection at all, and many schools have been certified, permanently, by many colleges on a mere exchange by mail of application and authorization. Schools are approved too readily by the colleges, and candidates are certified too readily by the schools (120, 274). Usually, if the boy can graduate from the school, almost any school, he can go on to college without more ado. No two schools have the same standards of marking, and even injustice results: a badly prepared candidate, certified and recommended by a school and a principal whose standards are low, may take precedence over a better prepared candidate from a school of higher standards (87). Schools may deteriorate and still remain on the accredited list (35). Admission by diploma fosters a tendency to avoid tests of accurate scholarship (35). Proper inspection, if it existed, would cast on the colleges a heavy burden of labor, time, and expense (35). The certificate system is hard to administer effectively, and it encourages purely quantitative measurement of scholastic attainments (384). Such a method is impossible so long as the defects of organization in the high schools are as glaring as they are at present (379). Especially in the case of the small college the certificate system subverts the traditional aim of the college; its mental discipline and its fine liberal culture are sacrificed (192). A large percentage of those to whom a high school diploma may fittingly be awarded fall short of capacity for doing college work successfully (274, 285). Actual experience shows (42, 347) that in any institution which admits entirely, or nearly so, by certificate or diploma, and at the same time tries to maintain its college standards, a large number of students will be dropped from college despite the hardest kind of work and despite the tacit assumption that, once admitted in full standing, they can proceed to

a degree if they do not neglect their studies. The certificate system at its best is a friend of mediocrity rather than excellence (233).

The defense of the entrance examinations rests on both intellectual and moral grounds. The examinations stress and determine ability to use knowledge, rather than its mere acquisition, and thus almost automatically select those who are qualified to proceed to the work of the college, which requires less mere memorizing and reciting than does the school (216, 277, 357). That they are a good test for their purpose is shown by a high correlation between rank in entrance examinations and rank in college (220). They require a comprehensive grasp of a subject studied for a considerable period (275). They are stimulating to the schools (14, 157). They enable the college to lay before the schools concrete examples of the standards it sets up for admission (275). They influence the schools to keep up to the standard which enables other colleges safely to admit by certificate (157, 379). If in any case they prove not to be a good method of selection then something is wrong with the examinations (216, 221). They are good training for life (14). They make students self-reliant (14, 157). They have an excellent moral effect upon the student (14, 60, 289). On the educational side it is not so much a matter of college methods as of college aims. It may be that the objects which a college pursues are not worth pursuing, but so long as it does pursue them it must of necessity demand the preparation that is essential to their attainment. Such preparation can not be demanded if certificates are accepted in lieu of examinations, and if the schools are permitted to use whatever they please as preparation for college. Hostility to entrance examinations is really hostility to college aims (396).

Neither the examination nor the certificate system has proved entirely satisfactory (53, 145, 175, 176, 178, 256, 302, 303, 384). Regret is sometimes expressed at the passing of the former oral entrance examinations, but it is usually admitted that they are not possible under present and prospective conditions, especially with the adoption of the College Entrance Board examinations (35, 159, 414). It is difficult to make oral examinations uniform.

Whatever merit the certificate method may have, it is feasible at all only in the State universities, where the preparatory schools involved are more or less a part of the same educational system and subject to real inspection (166). An endowed college has neither the ability nor the authority to inspect or control all the schools

from which it draws its students. The certificate system is an adaptation from Germany. It works there because education is centralized. It is not centralized in the United States, and inspection cannot take its place (379). It is doubtful if the high schools of any State have yet reached the general level that the certificate system properly requires (396).

Indeed, little can be learned from European experience as to the relative value of entrance examinations and admission by diploma. Practice varies abroad (25, 183, 214, 385, 386, 393, 396). Moreover, our college has little in common with the European university. And we have no national control of education to make school and college parts of the same system. Perhaps, for our purpose, the most interesting feature of European entrance methods is the distinct trend in England toward a plan somewhat similar to that of the comprehensive examinations of the College Entrance Board (386).

But there is one element in European education that is lamentably wanting in America and which could be better developed in this country by entrance examinations than by admission through certification. In England, and in varying degrees on the Continent, university training is a *sine qua non* of success in the professions, in the higher walks of business, in all but the lower forms of government service—and the degree of success is believed, and often, indeed, deliberately made to depend upon the degree of previous academic success. Diligence and aptitude for knowledge are viewed as the best guarantee of achievement, and opportunity depends upon competition in examinations. In this country there has been much change for the better since the war, but the belief is still widespread that the non-college man or the low-stand college man is apt to surpass his more intellectual brother in the rough and tumble of life, a belief as irrational as it is contrary to fact. Competition in examinations has been too much disregarded in America (176). Admission to college should be conducted by rationally and flexibly administered competition, and there is no way to make it really so except by competitive examinations (44). If such a system were logically extended it would provide also special opportunities for those with unusual gifts but limited means who do not now go to college at all (53, 361), perhaps by the endowment of competitive scholarships which would make it possible for poor boys of marked ability to go straight from high school to college (108, 197). At present the emergence of the superior student is largely a matter of chance; for this should be

substituted a policy of deliberate selection and encouragement (340).

Restricted Certification.—One of the chief movements in collegiate policy has been the growing inclination toward concession to and cooperation with the schools, and this has tended to include the acceptance, usually with some restrictions, of their certificates or diplomas for admission (15, 35, 36, 40, 42, 85, 159, 166, 184, 205, 243, 255, 288, 323, 328, 352, 365, 373, 376, 379, 382, 384, 396, 400, 405, 408). The most common method of restriction lies in the simple and logical process of requiring certain work of the schools. But in this process is infinite variety. At one end is the recorded case where "students bearing the personal certificates of a former teacher concerning studies satisfactorily completed will be given credit for the work they have done" (35). At the other end is, for example, the University of California, which maintains perhaps the most efficient system of school inspection and has thrown the most elaborate safeguards about its method of admission by diploma. It accepts graduation from an accredited high school of the State if a certificate to that effect is accompanied by the recommendation of the high school principal. But the approved high schools must require for graduation certain work, specified in detail as to quantity and type (35, 318).

A less common, but not uncommon, method of restriction is based upon the apothegm, "by their fruits ye shall know them." The admission value of a school's diploma is determined and renewed by the college performance of previous graduates of the school (254, 273). This general principle has been accepted for many years by the New England Certificate Board. Often it is applied only to a fraction of the graduating class of a school, and it may be then one form of compromise between the certificate and the examination system (253). The University of Pennsylvania introduced such a plan several years ago. Depending upon the quality of work done in the university by its previous graduates, a school was permitted to certify students for admission to the university from the upper quarter, half, three-fourths, or the entire graduating class (273, 323).

A different but related scheme is the admission by certificate of only an upper fraction of the graduating class of a school, say, those who graduate with high honors (275); here the fraction is determined

without special regard to the previous college records of the school's graduates. It is argued that if all holders of high school diplomas are admitted prospective college students are without incentive to do better work, and that the studies and courses of the college should be planned only for the more fit among the high school pupils (143). Wherever there are State universities, public opinion considers graduation from the high school as equivalent to an entrance certificate for the university; but, while the grade required for graduation must of necessity be such that a majority of the pupils can reach it without serious difficulty, every teacher knows that only a fraction of that majority is fit for more advanced work (379). In every large group of pupils there are vast differences of native aptitude, industry, ambition, and perseverance. Some graduates of the schools are fitted for college and others are not (18, 285).

Actual practice differs so much in these matters, and public announcements are often so vague or so limited to bare rules of procedure, without explanation, discussion, or theory, that it is not always easy to tell whether exclusion of the low or acceptance of the high grade pupil, whether certificate or examination, is the norm. But frequently admission by certificate is viewed as a privilege to be won by unusual students, and high rank in school is accepted in lieu of entrance examinations. Some colleges admit on certificate only when the school grade attained by the pupil is higher, by a certain percentage, than that required for graduation from the school (85, 255, 352). But another point of view contemplates the exclusion of those who grade in the lowest quarter, or third, or half of their high school classes, or their admission only by special permission or by special examination (53, 215, 256, 273, 279).

Statistics have been gathered which seem to show that a candidate from the lowest quarter of the secondary school class has not to exceed one chance in five of doing work of average quality in college. Chicago, Oberlin, and others will not admit students from the lowest register of the class in an accredited school (6). On the other hand, the highest quarter of the class is almost certain to do well in college. Several years ago Harvard reshaped its entrance requirements so as to diminish the importance of the examination and put more emphasis on quality of work. Students were admitted without conditions when their combined school and examination records justified the belief that they were ready for college. And exceptional students were not held to the strict requirements of language, science,

mathematics, and history for entrance (322). About the same time, in 1920, Dartmouth formulated a special plan of admission without conditions for the highest quarter of the graduating class in an approved school, provided 3 units of English and 2.5 of mathematics were offered (320, 321). And more recently Harvard has accepted, without examinations, candidates who stood in the first one-seventh of their class at accredited schools.

Combination of Certificate and Examination.—The larger part of the arguments regarding the certificate method and the examination method of entrance treat them as if they were mutually exclusive, as if one were all good and the other all bad. It has been remarked, however, that the disadvantages of the entrance examination begin to accrue only when this admission test is treated by the college as an end in itself, as standing in no relation to the pupil's school work, and as that by which alone he must stand or fall (60). It is doubtful if any college admits on the basis of examination alone and with utter disregard of school record and other data, especially in the doubtful cases on the border line. One proposal has been to require examination in certain types of studies and accept certification for others, including in the former the subjects necessary to show power to go on with collegiate study, such as English and mathematics, and in the latter the attainments chiefly useful in the general scheme of education, such as history and descriptive science; possibly also in the second or certificate group the attainments auxiliary to intellectual power, such as modern languages. The student radically deficient in the first or examination group has no business to go on with a college course (157, 158, 159). Some think that admission is best directed and accomplished through a combination of certification, inspection, and examination, but with the latter indispensable (74, 152).

A rather special plan was tried at the University of Pennsylvania (14). The candidate presented two things, a record as to his school work and credentials as to personality. The university then could follow one of three courses: admit him straightway, subject him to examination in any or all subjects required for entrance, or refuse him the right to take examinations. Such a scheme has the advantage of encouraging and rewarding good school work and high standing, but its success would depend entirely upon its administration. It could easily become a mere variation of the certificate sys-

tem. It leaves little room for cooperation with the schools. And its arbitrariness would inevitably cause personal dissatisfaction (14). Columbia combines the examination with testimonials as to personality (14, 101). Princeton requires examinations and makes them of primary importance, but it considers also school records and testimonials, and provision is explicitly made for showing particular consideration to candidates whose *records* show unusual promise, seriousness of purpose, or achievement under difficulty (294). Mount Holyoke, Smith, Vassar, and Wellesley have a system which is a combination of the examination and the certificate plans (189). More and more the best practice has tended to attach weight to the school record of each candidate in connection with his entrance examinations (53, 215, 396, 397).

Comprehensive Examinations.—The most important and the most promising effort to combine the certificate and the examination methods of admission is that known as the "comprehensive plan of examination," or the "alternative plan," or the "new plan." This type of examination was introduced at Harvard in 1911, as an alternative to the older system (14, 116, 168, 173, 174, 175, 179, 209, 226, 309, 337, 370). One of its primary purposes was to bridge the gap between the college and the public high school, especially of the Middle West (111), to give more freedom both to the school and to the candidate. It aims to combat the evil of entrance conditions and to meet other objections to the examination system, and at the same time to preserve its advantages (53). It is flexible enough to test the qualifications of all candidates, whatever the variety of their preparation. For quality examinations are stressed, while certificates are accepted to make up the required quantity (388).

The new plan provided for an approved school course, the submission of the individual school record, and comprehensive examinations in four subjects (335, 388). By a comprehensive examination is meant: "(1) One that is adapted to such variety of school instruction as exists in the several subjects—that is, the question papers will not prescribe methods but will recognize the general principle that the schools determine how they shall teach a subject and that the college tests results or power. (2) One that is adapted to the different stages of training in the subjects in which the papers are set—that is, they will give applicants opportunity to show their power, whether they have had the minimum or the maximum amount

of training given in school" (92, 173, 290). In other words, the comprehensive examination "is designed to test the candidate's general knowledge of a given subject and his intellectual power, not to ascertain whether he has mastered a prescribed book or course" (388).

Almost immediately after the introduction of the comprehensive examinations at Harvard a similar plan was adopted by Bowdoin (336), and later by Columbia, Princeton, Yale (46, 112, 216, 219, 313, 414), Boston University (316), Mount Holyoke, Smith, Vassar, Wellesley (58), and others (349, 384, 388, 402). In 1915 the new plan received the recognition of the College Entrance Examination Board (92, 109), and is now widely accepted as an alternative to the old plan (*e. g.*, 290), although as late as the catalogs of 1916-17 no State institution had officially announced its adoption (388). Inasmuch as the plan is intended to test power rather than the completion of subjects, it is usual to take the school record into account and to accept school certificates for the requisite entrance points not covered by the four comprehensive examinations, and to require that all four examinations be taken in one set of tests; if a student passes them he is admitted without conditions, if admitted at all.

Few voices have been raised in public against the comprehensive plan, and they only mildly questioning (14, 216, 219, 233). Approval has been frequent (5, 58, 109, 111, 209, 219, 309, 337). The plan has worked very satisfactorily, but the number of candidates availing themselves of it, while increasing, has not reached expectations (11, 93). The explanation doubtless is the piecemeal preparation that is not permissible under the new plan and is under the old: a pupil can pass his examinations one at a time over a period of two years and more before he enters college (*e. g.*, 290). The preparatory schools have displayed some distrust and more indifference toward the new plan. They conceive that the method of scoring used in the old plan is safer, and prefer the greater number of examinations and the possibility of dividing them (174, 179). They say that the comprehensive examinations require more review and result in more disarrangement of the regular school program (112). Under the old system the schools can promote by means of the preliminary examinations and can thus keep a better eye on their pupils' progress.

The chief advantages claimed for the new plan (11) are that it leaves the secondary school free to carry on its program as it sees

best; gives the applicant an opportunity to show up at his best by examining him in subjects which he to some extent chooses; allows no conditions; and makes a more careful selection on the basis of personal qualifications. The chief weaknesses (11) are to be found in the danger of conventionalizing the examinations, and in the probability that the schools and pupils will slight the subjects in which examinations are not to be taken.

It has been suggested that the new plan could be accommodated to the needs and convenience of candidates by some such scheme as permitting an optional first trial examination a year before entrance to college: comprehensive examinations in not less than four subjects. If a boy fails he has a whole year to adjust himself, and if he fails again blame is put where it belongs, on the boy. Such a modification of the new plan could do away with the clumsy practice of having two examination plans, it could abolish admission with conditions, and it could meet the criticism of the schools that, for the old plan candidate, the last two years are crowded for examination purposes (179). It could provide the flexibility of the certificate system while imposing the individual test for which the entrance examination is primarily intended (384). This general proposal deserves more consideration than it has received.

New Types of Examinations.—Much attention has been attracted by recent efforts, particularly in the courses of schools and colleges, to devise a multiple question, mental test type of content examination which can avoid the fluctuation and subjectivity of the usual content examination, be standardized as to difficulty, be made almost completely objective, and be constructed to cover a wide range of subject matter quickly (96, 182, 253, 411, 412). The most common forms consist of so-called true-false statements, yes or no questions, recognition tests, and completion tests (96, 182). Usually it is not proposed that the new type of examination shall entirely replace the essay type, which is retained to test synthesis, exposition, and knowledge of the sequence of events, especially in subjects like English composition, history, philosophy. The new type has been tried, with much local satisfaction, in a number of courses and departments in Columbia College. And an elaborate experimental study of wide application has been made for Columbia Law School by Professor B. D. Wood, who recommends the adoption of the new type examination in combination with the essay type (411). Tests of the new type

are being used with apparent success in at least a dozen other institutions of higher learning in the United States (96).

In 1920 a Commission on New Types of Examinations was organized by the College Entrance Examination Board. It presented its report (96) to the Board in 1923, and, in 1924, a report (96) of a committee appointed by the Commission to determine the validity of the statistical methods used in the preparation of the Commission's report. Whereupon the Board voted to make a practical test of the value of questions of the new type, and requested examiners to modify the prevailing type of examination in elementary algebra and in ancient history so as to include questions of the new type (94).

The original report of the Commission was based upon a number of experiments, and purported to show a high degree of prognostic value for the new type examinations when compared with school records, College Board examinations, and college records. It recommended the adoption by the Board of at least some of the features which the new type examinations present, and a continuation of experimental studies (96). The committee of statisticians which reviewed the report of the Commission were unanimous in agreeing that the Commission had given too great importance to the application of the Spearman-Brown formula, that the conclusions based on its use were not reliable and should not be taken into account, and that the data employed were too meager for satisfactory results. On the other hand, the committee concluded that the new type tests correlate with school records at least as well as the ordinary entrance examinations, and that there is sufficient indication of superiority on the part of the former to encourage further experimentation on a larger scale (96). And there the case rests for the present.

Personality Ratings.—With the great increase in recent years in the number of applicants there has been a growing tendency to expand the number of factors to be taken into consideration in admission to college: a more conscious selective process has arisen (145, 356). Perhaps the chief active resistance to this tendency lies in the practical guarantee of acceptance offered by some endowed institutions to all qualified sons of alumni. The chief negative resistance lies in the more automatic methods of admission that prevail in the State universities. But generally, and with much variety, other criteria than entrance examinations and school certificates

are being taken more and more into account. Some impulse in this direction has come from the rather subtle values employed in the selection of Rhodes scholars, despite the fact that their endowment is intended directly to serve social and political ends, as well as educational. And some may have come from the rampant personnel officer in trade and industry, who is apt to weigh the imponderable, even if he does not always go so far as to proclaim that brunette people are phlegmatic and pessimistic and should be buyers, while blonds are sanguine and optimistic and should succeed as salesmen.

In 1921 it was announced that Dartmouth would count the following as primary factors: high scholarship, character, qualities of leadership, and principles of geographical and professional and occupational distribution (327). A proposal (6) fairly representative of the present trend in admission theory (213) would give equal value to each of the following: secondary school record, comprehensive examination in English, comprehensive examination in some other subject, psychological test, morale score. Practice has not yet gone so far, but it has progressed widely toward attaching weight, not only to the school certificate, but also to the school record of each candidate and regularly using it to determine his fitness for admission to college (138, 221).

Difficult as they may be to rank and rate, there can be no doubt that there are various personal characteristics that vitally contribute to success or non-success in college. Most of them probably factor all along the line and more or less automatically help to determine the student's progress, without their being at any time reduced to grades or receiving any other direct academic rating or consideration (312). But many educators believe that character, personality, and temperament can be and should be estimated and permitted to function in entrance requirements (94).

In 1920, 23 State and 29 endowed colleges, or about half of the institutions investigated, had a catalog requirement of some kind of certificate or statement regarding moral character (388, 11). All colleges expect that their students will be of good moral character, but in practice the requirement is often interpreted negatively, and only those of known bad moral character are excluded. But a really successful college career requires more than this and more than the mere ability to pass entrance examinations or intelligence tests: positive moral stamina, strength, and maturity of character. President Hadley is quoted as saying that "college boys must be old enough

to be left free to make their own mistakes" (2). The practice is deplored of defining and measuring education in terms of "units" and ignoring the human element (55, 69). Most failures in college are failures in purpose and will, in character; a strong determination to do the daily work will overcome almost any intellectual defects of preparation (2, 53, 68). Only strong-willed, purposeful students can be expected to profit much by a college course (362).

It is the individuality of the student that counts (204). We are accustomed to depend too much on machinery, on formulas, and not sufficiently on the human element in the problem of transferring students from one school to another (60, 86). Candidates might well be admitted according to the principles of selection used in the Rhodes scholarships, with special emphasis on character and capacity to profit by a college course (346). Possession of standard credits has not meant possession of health, character, maturity, ability, and desire to profit from collegiate work: personality preparation, not academic preparation, is the valid test (5, 301, 312). There must be some sort of selective process which will lay emphasis upon power and discipline rather than upon mere scholastic attainment (53, 159, 172, 216, 389, 391). The most significant and valuable part of the selective process will consist of evidence regarding character, personality, intellectual interest, native ability, industry, faithfulness, straightforwardness, school spirit, and leadership (201). Most frequently, in these discussions, the qualities stressed are intellectual power (rather than acquisition), character, and personality (329, 396). Others would put the chief emphasis upon the candidate's motive in wishing to go to college, with a view to accepting only those with a definite, serious, and carefully considered purpose (35, 303).

But these things are hard to evaluate. Any attempt to rate and count these vaguer personal qualities is fated to failure and injustice, if indeed it does not from the beginning savor of hypocrisy and serve as a cover for the lack of definite standards of admission (72). Experiments made at Brown since 1919 show that the school principal's estimate of a candidate's character is not of much practical value in indicating the kind of work which the student will do in college (53). The real difficulty is that we have as yet no tests of character (53). And there is no way of rating such qualities as personality or leadership save by purely subjective and impressionistic standards, a method which can approach fairness and reason only by the doubt-

ful means of averaging a number of estimates that must vary widely both in value and in values. But this is not to deny that certificates or testimonials covering personal qualities should be required in every case, that they should be taken into consideration, and that they should be permitted frequently to turn the scales. And of course unsatisfactory evidence of character is always and in itself sufficient ground for exclusion.

Personal Interviews.—It has been suggested that the college could directly form a judgment as to many of these qualities if a long personal interview between the candidate and the director of admissions or some other officer were made an essential part of the entrance requirements (28, 101, 145, 230, 272). In one institution where the experiment was tried the interview counted for fifty per cent (27). Such an interview is of course desirable, especially in doubtful cases. But the proposal to make such a requirement universal and uniform has made little impression and received little discussion: the objections are too obvious. In large institutions it would be a hopeless undertaking by reason of the sheer magnitude of the task. It would require some candidates to cross the country and return on a mere chance: if the interview and final decision were postponed until Fall it would make application elsewhere difficult for the rejected candidates, and it would hold even the acceptable ones in suspense through the summer if the interview were to have any real weight in admission. Such a test is at best entirely too personal and subjective; no official that ever lived could exercise it on any but the smallest scale with even approximate impartiality.

Intelligence Tests.—The most important attempt to measure the personal and individual qualities that do not readily appear in the ordinary entrance examinations or in the school certificates is the so-called psychological or intelligence test. The chief impulse toward its academic use came from its employment by the Government during the war, mainly for the selection of officers and their assignment to duty. Columbia and Brown first used this test in connection with the Students' Army Training Corps in 1918. Since then it has spread rapidly through the colleges (374). The results, published in 1921 (185), of a questionnaire sent out by the Bureau of Education to colleges and universities show that, of 228 institutions

replying, 105 were systematically using intelligence tests in the admission of students or in some other way, and that 124 had given them in some form or for some purpose. The College Entrance Board "regards with favorable interest the use of general intelligence examinations as supplements to other examinations," stands ready to cooperate in giving such examinations as soon as they are desired and seem feasible, and has appointed a commission to consider the desire for them and their feasibility (94).¹ Various types of tests have been tried, including particularly the Thorndike, Terman Group, Stanford-Binet, Alpha, Thurstone, and, in a number of colleges, local combinations and adaptations (374). They have been elaborately discussed; a bibliography of nearly 300 titles is listed by MacPhail (253), who gives also a history of their development and spread, and a survey of current practice.

Occasionally all merit is denied to the use, at present, of such tests for admission to college, on the ground that they fail to measure accurately and definitely (377), or that mere intelligence is not the true test (186), or that they fail to measure will and other moral qualities (162). It is argued that intelligence tests are arbitrary and their accuracy unproved, that when they pretend to test native intelligence or general intelligence they really test only abstract intelligence and neither social nor motor intelligence, which may be at least equally important: abstract thinkers are of doubtful value as leaders (54). There is uncertainty as to the accuracy of the tests as measures of *innate* mentality and ignorance concerning the part played by innate *mentality* in determining achievement; and "mental age" and "intelligence quotient" are purely relative terms and dangerous when applied to education (17). The intelligence testers themselves agree that "their tests do not measure *simon* pure intelligence, but always native ability plus other things, with no final verdict yet as to exactly how much the other things affect the scores" (253, 81, 407). Success in college depends on many factors other than intelligence, and "the more precisely a test measures intelligence, the less will it correlate with academic standing."

And occasionally almost everything is claimed for them as a criterion for the selection and exclusion of candidates (6, 211, 340). Some would abolish the usual college entrance examinations and replace them with a system of mental tests for the purpose of discovering individual differences (389).

¹ The Board introduced such tests in June, 1926.

But the prevailing and best present opinion in American education is that they test certain things and do not test other things, that they are still in the experimental stage, that the experiment should be continued, that even now they are a useful adjunct to the usual entrance requirements in the event of very high or very low standing and may be determinative in otherwise doubtful cases, that they sometimes reveal inadequate preparation in an able student or neglect of his work after admission, that they are most valuable in eliminating the distinctly unfit, but that they should not be used by themselves for any direct academic purpose (6, 32, 53, 106, 193, 211, 212, 217, 229, 253, 257, 263, 325, 361, 366, 375, 389).

The real difference of opinion is over the question as to how the tests are to be used. At Princeton they are being made the subject of experiment over a period of several years (294). Tests are given at entrance and at intervals after admission; the results are carefully correlated with academic rank in freshman and sophomore years, but they are not used directly in the determination of standing or of admission. They are used as a check, however, by the officers and committees of the university, and by the advisers in their relations with individual students. All statistics are being preserved and elaborately analyzed with a view to determining, in time, the effectiveness of the psychological tests as a supplementary part of the entrance requirements and their serviceability in guiding and advising students in college.

The University of Pennsylvania offers the privilege of taking intelligence tests to those candidates who have graduated from a first-class high school but whose rank is not high enough to obtain a certificate from the school (323). Columbia and Chicago permit the able candidate who is deficient in some of the usual entrance requirements to enter the university by means of intelligence examinations (32, 255, 366). At Stanford the tests are given to all entering freshmen and the results are compared with those of the regular examinations, but for the present they are used only in doubtful cases (356). At Brown all accepted candidates are given, at the beginning of their freshman year, two psychological examinations, one a Thorndike intelligence examination for high school graduates, lasting three hours, and the other a Brown University psychological examination, requiring a little more than an hour. The entering student also fills out a personnel card indicating his interests, attainments, ambitions, and a self-estimate as to his habits of study, self-reliance, social

qualities, and other characteristics (53, 253). These tests are in no way used as a substitute for entrance examinations, but chiefly as a means of ascertaining natural aptitude: they are useful immediately in determining the question of entrance in doubtful cases (257). At Dartmouth three kinds of psychological rating are used for analysis of the freshman class: (1) personal ratings by members of the faculty; (2) an Alpha examination; (3) a completion-information test, designed especially for selecting the men of the highest intellectual ability. Of these three, it is reported, the most serviceable is that obtained from personal ratings submitted by the faculty, which have regard to intelligence, aggressiveness, originality, reliability, personal impression; but scholarship is a better index of general intelligence than any psychological test so far reported (263). At a number of colleges intelligence tests are used for the purpose of sectioning classes on the basis of ability. At others for the purpose of determining whether a student shall be permitted to carry a heavy or a light academic program (253). At others for the selection of students to receive scholarship aid. And at many colleges in connection with the treatment of probationary and delinquency cases (253).

Statistics at present available from various institutions indicate a fairly high degree of correlation between psychological tests at entrance and academic examinations at entrance and after entrance (53, 188, 273), but it is perhaps too early to draw final conclusions from these reports. Some psychologists claim that the tests are more accurate for poor students than for good students; it is easier, one supposes, to strike their limitations. Others claim that the tests are valuable chiefly and almost equally for the very good and the very poor students; that they give little information concerning the mediocre. At any rate there can be no doubt that the tests are steadily improving in quality, and that the degree of correlation between intelligence scores and college grades, and consequently the prognostic value of the former, is steadily increasing.

Relative Prognostic Value of Entrance Criteria.—Formerly the relative value of the various methods of college entrance was largely a matter of impression and abstract theorizing. Recently, however, and chiefly under the influence of the proponents of intelligence tests, numerous groups of statistics have been gathered, which, by comparing a large number of entrance grades of various kinds with actual

performance after admission, purport to show the prognostic value, and consequently the intrinsic value, of the different types of entrance criteria. On the assumption that entrance tests of any kind are intended solely to show fitness for college work, the general logic of such statistics seems justified. Data of this sort have been collected for the following admission methods: (1) old type examinations; (2) certification; (3) comprehensive examinations; (4) high school records; (5) intelligence examinations (253).

But nowhere are statistics more dangerous than in the field of education, and nowhere is caution more needed than in their use. In the present case at least five considerations must be kept in mind. The first is that because of the nature of the data it is difficult to compare directly one method with another. In most institutions one method prevails over the others, and one college must be compared with another, where conditions and standards are different. Likewise regarding students: the candidate who enters by certificate is not likely to take entrance examinations. The second consideration is that it is easy to overlook essential elements. For example, statistics have been solemnly published which claimed to prove, by data from a college which admitted both by examination and by certificate, that the latter method was better because the students so admitted did better work in college. No regard was paid to the fact that the poor student in high school is not entitled to a certificate and must be examined, that in general the good students in college were admitted by certificate, and the poor ones by examination (184). Third, too broad generalizations have frequently been drawn from data of an extremely limited scope, numerically or geographically. Fourth, statistical advantages for one system or another, so slight as to be negligible or assignable to chance or to unimportant factors, have more than once been used as proof of the superiority of that system (184). The fifth consideration is the great disagreement among statistics collected under more or less the same conditions.

Many comparative tables indicate little or no superiority of one method over another as a means of forecasting the quality of work that students are likely to do in college, or are capable of interpretation either way. Thus, MacPhail (253) gives two tables showing, for a number of institutions, to some extent identical, the coefficient of correlation respectively between entrance examinations and college records and between high school records and college records. The coefficients range from 0.29 to 0.69 (0.0 or zero indicates absence

of any relationship; 1.0 or unity indicates a perfect positive or like relationship). Chiefly because the two tables cannot be reduced to common terms, either in numbers or in elements, they are not capable of much more than impressionistic comparison, but MacPhail takes them to indicate that "high school records are somewhat superior on the whole to entrance examinations for prognostic purposes," whereas it seems safe to say that the average reader of the same tables would see the superiority on the other side. Some writers claim a higher correlation between success in college and intelligence scores than between college success and the traditional content examination scores or the high school records of boys admitted to college. Others think they are about equal, and still others rate the intelligence tests lower (253).

Some conclusions, it is true, are beginning to emerge. It seems fairly certain, from various statistics, that the old plan examinations, by themselves, give a higher coefficient than the comprehensive examinations. That the coefficient of school records is higher than that of either psychological tests or content examinations, old or new plan. Finally, that the most certain results, the highest prognostic values, are obtained from a combination of the school records plus psychological tests plus College Board examinations, old or new plan. In this connection it must be remembered that the psychological tests assume to measure only general intelligence and normal preparation. Also that we need to know very much more than we know at present as to the absolute and relative merits of content examinations as measures of ability and achievement and as prophecies of future performance. There is no doubt that they could be vastly improved if the subject were once well studied.

Indeed, there is still much uncertainty in most statistics that deal with the relative values of entrance criteria. The report (96) of the committee of statisticians, referred to above in the section on New Types of Examinations, says: "Under certain conditions the value of [the correlation coefficient] r measures the relation which the number of elements that are common to the measures of x and y bears to the total number of elements which are involved in both measures. In practice, however, the interpretation of a given value of r as indicating a high degree or a low degree of correlation is regarded as a matter of experience; and the actual interpretation therefore varies considerably not only with the subject-matter but also with the point of view of the investigator. To judge from the

rather meager data which are available, the practice in educational statistics is to regard values of r as satisfactory which in the physical sciences would be regarded as having little weight. Thus a well known writer on educational statistics says in effect that in his experience values of r less than 0.20 indicate indifferent correlations; values from 0.20 to 0.40, low correlation; from 0.40 to 0.60, marked correlation; and above 0.60 or 0.70, high correlation. In fact, in educational statistics values of r higher than, say, 0.75 are rare. Another writer, who has in view mainly applications in the more exact sciences, says that values of r less than 0.50 have little significance. This great difference in the weight given to the value of r seems to be due to the fact that in educational statistics the use of the correlation coefficient is largely qualitative while in the physical sciences it is regarded as giving a quantitative indication of the accuracy with which the value of a particular determination of y is known when the value of x is given."

Before final conclusions can be reached in these matters a much larger number of observations must be available, the methods of correlation must be improved, and the scales used in measuring the variables must in general be such that what are called the "curves of regression" are approximately linear. Comparative and detailed studies, such as those made recently at Princeton (33), Brown (107, 253), and elsewhere, must be repeated many times over before we can substitute knowledge for opinions and guesses.

Director of Admission.—Little has been written on this subject. Usually the work of admission is shared by the registrar and an entrance committee of the faculty, with control centering in the committee. In the smaller colleges the president often has almost complete control, not only as to policy but even in individual cases. But even when the faculty committee has real executive power, it is apt to be large and unwieldy, to change frequently in personnel, and to be composed of men who have not had much experience in entrance matters nor made any particular study of them. Relations with the schools, with candidates, and with parents are usually handled by the registrar, who must refer for decisions to other authorities.

A plan that has worked very well as a substitute for a ponderous faculty committee or for presidential ukase has been introduced at Columbia (60, 104, 215), Princeton (294), and elsewhere. A small

faculty committee is chosen, whose permanent chairman is an executive officer of the institution and gives most or all of his time to entrance work. His duties are to encourage close relationship, mutual understanding, and cooperation between the college and the schools, to control admissions under a broad charter from the college, and to assist the freshman in every possible way to accommodate himself to college life.

The Problem of the High School.—The question of articulation between high school and college is one of the most important and difficult problems in American education. The earliest high schools, which grew so rapidly during the 19th century, chiefly after 1860, were intended specifically for those who were not preparing for college (35). They were substitutes for the academies, which were preparatory schools, and they were aimed to meet "the practical needs of the times," as neither the academies nor the colleges were supposed to do. As late as 1899–1900 nearly 90 per cent of the 519,251 pupils enrolled in public high schools were not preparing for either classical or scientific college (35). Indeed, only a limited number of high school graduates can profit, even if they want to, by taking academic courses, at least in the privately endowed type of college (53). But gradually there appeared a disposition to close up this gap, and college preparatory studies were from time to time introduced into high school courses, until finally the high school came to have a two-fold aim, to prepare for college and to prepare immediately for practical life. The two aims could not really harmonize, because of the peculiar requirements of the college, which emphasized formal studies and theory. The hopelessness of any effort to correlate these two aims has been repeatedly stressed and the proposal made that the effort be abandoned, on the ground that the college looks to a liberal education and the vocational high school to the immediate earning of money (20, 87). Many think that the colleges should make no concessions to the schools and that the schools should have no voice in regard to the entrance requirements of the colleges: the colleges, and their educational experts, have both the right and the duty to set their own standards and to demand for entrance a certain amount of preparation along certain lines, and it is not for the schools to say what that amount and those lines shall be—or at worst there should be slight and reluctant compromise (31, 143, 152, 155, 200, 238, 259, 285, 314). There are two main objections

to granting the public high schools any real voice in the matter of college entrance requirements. The chief objection is that the purpose of the high school is quite different from that of the college and only a small proportion of its pupils are looking toward college or could profit by it. The second objection lies in the poor teaching ability and inadequate acquaintance with scholarly material, methods, and ideals on the part of the vast majority of public school teachers (155). Many of them are not college graduates and only a few have done any postgraduate work. And usually they are burdened by excessive routine demands on their time.

At the other extreme it is asserted that, unlike the European university, the American college has to take whatever raw material comes to it (192, 238). The arguments are made that it is less a matter of what the college would like than a matter of what the school can do, that the American college must rest squarely upon the foundation of the American high school (162, 164), that even the useful activities in the vocational courses of technical high schools should receive full credit from the colleges on the ground that they result in skill and certain indispensable elements of a sterling character (285), that the vocational subjects prepare as well as any other for the work of the college (363), that the colleges, especially the State universities, should freely admit those boys and girls who though mentally slow are industrious and earnest in purpose (162).

This discussion raises the question whether the college degree properly rests solely upon the work done in college or whether it includes also the entrance requirements, and consequently the work done in the schools. If only the former, then the schools can go their own way. On the one hand it is argued that such frank separation would relieve the school from the oppressive domination of the college and enable the school to adapt its courses to its own needs (183, 285, 402), that it should be a matter of indifference to the college where and how the applicant acquired his fitness to do college work (312), or at any rate that the college has no right to bring pressure to bear upon the schools in the matter of the subjects they shall teach (45, 76, 172, 367, 396). On the other hand it is claimed that entrance requirements and degree requirements are essential parts of a continuous educational program and cannot be separated without great loss to the latter (60, 142, 146, 249), that the awakening of powers which the college demands of the school would be best also for those who are not going to college (146).

Between the extreme and opposing views which we have been considering lies the widespread realization that high school and college have related though different tasks and that their problems will best be solved by enlightened cooperation (3, 4, 23, 34, 60, 64, 82, 102, 146, 173, 249, 252, 256, 359, 391). The attempts at adjustment fall under three main types: (1) attempts to secure flexibility in admission requirements (by absolute prescription, by the group system, or by the system of free electives); (2) alternative methods of admission; (3) attempts to secure uniformity (35).

A number of the plans of admission which we have considered in previous sections of this chapter are motivated by a desire on the part of the colleges to dovetail so far as practicable with the high schools. The tendency to do so has been strong and is growing stronger, and many experiments in the way of partial or restricted concessions have been made to the schools. Chiefly in the West the colleges and universities tend to accept for admission any reasonable course of study approved by the better high schools (231, 363). Many colleges admit the recommended graduates of any first-class high school without regard to the subjects studied in the high school (29, 164). Usually, however, eight or ten fundamental units are required and either much or complete option is permitted in the subject matter represented by the remaining units (290, 317, 363). At Cincinnati the high school may offer any subject which the school itself recognizes for graduation, this freedom extending to one-fifth of the total entrance requirements (315). A frequent practice, even among the endowed colleges, is to accept a maximum of two to five units (two or three is most common) for entrance in subjects not officially listed, provided these subjects are accepted for graduation by the schools, or provided they are taught in the colleges themselves, or provided they are properly combined with corresponding fundamental subjects, or taught in a manner specially approved, or with other restrictions (52, 85, 113, 205, 279, 352, 365, 376, 397). One of the most carefully balanced attempts to accommodate the college to the needs of the high school and to the demand for the more vocational type of courses has been made at the University of Chicago (13, 15, 254). Admission is by examination or by certificate from an accredited school. Fifteen units are required, distributed as follows: 3 in English, 7 additional in traditional subjects, and 5 in any subject or subjects accepted for graduation by an approved high school.

All of these experiments and compromises are based upon the as-

sumption that the high school as at present constituted is practically unchangeable and that all concessions must be made by the college. Only two types of suggestions look to accommodation on the other side. One is that the public school system institute, more generally, special courses, classes, or even high schools for those pupils who intend to go to college. The other is that the high schools themselves should impose the universal restriction that vocational subjects shall not occupy more than a certain proportion, usually put at one-third (13) or one-fourth (164) of the pupil's time.

The Eastern "examining" colleges still prescribe a large proportion of the subjects and even the methods of the preparatory school. The Western college has in large measure accepted the dictates of the high school and has practically surrendered the right of intervention in the courses of preparatory study (111, 231, 391). It is primarily justified as an attempt on the part of the college to accommodate itself to the needs of the high school, which in turn must accommodate itself to the broad needs of the community (15, 22, 34, 35, 124, 173, 241, 283, 357, 382). Usually, as a legal result of incorporation into the public school system of the State, the State universities have gone farthest in the accommodation of its requirements and courses to the courses and aims of the high schools (205), but, particularly in recent years, there has been a growing inclination also on the part of the private colleges to cooperate with the high schools and to view the relationship between college and school as an essential link in the whole chain of education (173, 256, 270, 334, 391, 396). Harvard, Yale, Princeton, Columbia, and other endowed colleges have made serious efforts to solve the problem of the high school candidate and to open their doors to him whenever he shows signs of real promise (293).

Vocational Subjects.—Inevitably the problem of the vocational school and vocational courses projects itself finally into the college, and questions the intrinsic value of the traditional studies which the conservative college still tends to make indispensable to its degrees. Why should a student have to study, either in school or college, mathematics or a foreign language or any other subject for which he may have little taste, aptitude, or need (29)? One subject offers little more mental discipline than another, and it matters little what a pupil studies so long as he studies hard and learns to think clearly: this puts the burden of proof upon those who claim that

certain subjects with small practical value have exceptional powers to train the mind and impart general culture (164). Many educators admit a value in the old idea of formal discipline, but a much more limited value than has been claimed in the past and one that can be equally realized from studies more closely connected with life than the old drill studies, as often taught, have proved to be (42, 256). Nor is the claim lacking that modern, practical, applied knowledge has itself proved to be equally rich in cultural values (35, 285), in mental training, in inspiration (382, 397), or, if perchance this claim should fail, then that efficiency must be ranked with culture in the bestowal of a college degree (285). There are "new humanities," mainly economic and historic, as liberalizing and as valuable as any that have gone before (235).

Frequently such claims rest upon the current theory of the psychologists that there is little transfer of training, that knowledge of one subject will help little in the study of another subject, and that a subject should be studied for its own sake only. Again and again in the recent literature of education this doctrine has been accepted as a commonplace of demonstrated truth. Even in the able professional defense of the classics recently published by the American Classical League only moderate claims are made as to the transfer of training from Latin to other fields (88).

This new-fangled theory of education has of course not been allowed to go unchallenged. In 1924 President Nicholas Murray Butler wrote (63): "Until about 1890 the ruling notion in American education was that there existed such a thing as general discipline, general knowledge, and general capacity, all of which should be developed and made the most of by cooperation between the home and the school. As the result of a few hopelessly superficial and irrelevant experiments, it was one day announced from various psychological laboratories that there was no such thing as general discipline and general capacity, but that all disciplines were particular and that all capacities were specific. The arrant nonsense of this and the flat contradiction given to it by human observation and human experience went for nothing, and this new notion rapidly spread abroad among the homes and schools of the United States, both to the undoing of the effectiveness of our American education and to the spread of a spirit which makes for lawlessness."

State Universities.—In a real sense the State university is a prod-

uct and extension of the public high school and continues its methods and purposes. Compared with the endowed college, it is a recent development in this country. Geographically, it reaches its greatest growth and influence to the west of the Alleghanies. Back of it is the wealth and power of the sovereign State. It is supported by taxation and belongs to the people, all the people. In 1906 there were in the United States 89 State universities, colleges, and schools of technology, and 181 public normal schools. These 270 public institutions enrolled more students than the 616 private institutions of the country (27).

From these facts several considerations emerge that have direct bearing on our study. The State university wields an enormous, and increasing, influence in American education. It is a logical development of the conditions which produced it and a logical unit in the system to which it belongs. It must continue to serve the broad and public purpose for which it was created. It can never be narrowly monastic or exclusive, but must always maintain close contacts with practical life. Politicians will always share in its administration with educational experts. It cannot, perhaps, be deliberately and directly restricted in size, and its doors must be kept open to all, male or female, white or black, rich or poor, industrious or idle, gifted or stupid, who have had a certain minimum school training. The individual tends to be merged in the mass, and no individually selective process can prevail. The burden of proof is always on the university to show cause why this or that student should not be admitted or graduated, and then only because he fails to conform to inviolable and impersonal categories.

But within these bounds State universities can and do theorize and experiment with educational ideas, they have on their faculties many of the world's greatest scholars and educators, and some of the universities are fairly free from the educational domination of unenlightened legislatures. And there is no doubt that these bounds can and will be expanded in various directions. If the State university cannot limit its numbers to a definite figure (which is not in itself desirable), it can at least exclude a larger number and avoid the cluttered conditions that now often prevail. If it cannot arbitrarily admit an irregularly or inadequately prepared candidate of great gifts and promise, it can at least provide a flexible system of admission which may cover his case. If it cannot ignore certificates from the high schools of the State, it can, presumably, require

in addition examinations in fundamental subjects. For these reasons all our discussion is intended to apply to State as well as to private institutions, so far as such application is feasible.

Two Types of Students.—There are, throughout, two types of students, or at least two classes with quite different interests and aims. To a certain extent the one is cared for by the high school and the State university, and the other by the preparatory school and the endowed college. But such a formal division is illogical and impracticable. Members of both classes attend, and must attend in large numbers, both types of institutions; and they go from one to the other. Some colleges draw as much as 85 per cent of their students from private schools, while others draw at least as large a percentage from the high schools. The high schools have complained (118) that it is difficult to prepare students for college because of the lack of uniformity in entrance requirements, and because of the fact that the high schools exist principally for those who are not going to college. It seems, certainly, that the colleges must accept the facts that the high school has its important function and must be preserved, that its main purpose is not to prepare for college, and that many desirable candidates for college have perforce to attend the public schools. There is no implication that the private schools are superior to the high schools, but merely that their functions are different. Indeed, the private schools have in recent years been subjected to more vigorous attacks than the public schools, not merely from the general and democratic public on account of their exclusiveness, but also by expert educationalists who claim, among other things, that the present preparatory school largely ignores the necessity of mediation between the world in which the boy lives and the world which he finds in his textbooks (141).

Various plans have been offered to care for the divergent aims of these two types of students. The suggestion has been made (157) that the public school system universally adopt as a policy the separation of classes into two groups: those who are about to finish their school days and those who are preparing to advance further. Such a scheme is feasible, however, only in the larger cities, for this means, not two groups in each school, but two groups in each class; and in many, perhaps most, schools, one of the two groups would be too small to justify the elaborate and expensive machinery that would be necessary to maintain it. The same objection ap-

plies even more strongly to the proposal (152) that our preparatory schools, from the lowest to the highest, be thoroughly differentiated as industrial and academic, but with an organization that would permit transfer from one to the other at appropriate intervals. Also this proposal fails to allow for the legitimate needs of an able student who intends to enter business but desires, in addition to his practical courses, to obtain a reasonable amount of training in the humanities. A similar suggestion has been made for the colleges: that we should have two distinct types, with different types of entrance requirements, the one practical and the other cultural (31, 192, 231, 297).

Still another proposed solution that attaches itself to the aristocratic theory of higher education would draw the line horizontally between the two types of students and studies and would frankly accept college and high school as two distinct kinds of institutions, with different methods and purposes, the former qualitative and the latter quantitative in its ideal (87), the former for the select few who have the requisite time, money, and aptitude, the latter the "people's college," which, in view of the increased extent and variety of its curriculum, its new value and dignity, prepares its graduates for their life work as well as the college of fifty years ago (27, 121).

Other writers have stressed, not the horizontal line between school and college that separates those seeking a liberal education from those seeking practical training for the earning of a livelihood, but the perpendicular line that runs through college and separates the serious from the frivolous student, the student who has a definite purpose from the student who goes to college chiefly for the social pleasures and advantages which it gives him. Various schemes have been proposed to distinguish as to manner of treatment these two classes. One is the sectioning of classes on the basis of ability, a subject discussed by Committee G in reports published in the *Bulletin* for October, 1923, and for February-March, 1926. Another is the introduction of honors courses, fully discussed by President Aydelotte in a *Bulletin* published by the National Research Council (2d ed., 1925). Frequently the suggestion has been made that the American college should introduce some formal distinction in the treatment and prestige accorded to the two types of students, preferably leading to different degrees similar to the "pass" degree and the "honors" at Oxford (60, 208, 394), or possibly to diplomas and degrees for the

one and mere certificates of satisfactory residence for the other. Another plan, which has been put into operation at Princeton (290), would distinguish sharply between the studies, methods, purposes, and quality requirements of the first two years of college and those of the upper-class years, the student applying for admission to the junior class on the basis of his previous college work and his demonstrated ability to study and think for himself.

Limitation of Enrolment.—It has not been many years since the great majority of American colleges were "in the market" for students. Above even material prosperity, plant and endowment, the chief criterion of success was the number of undergraduates. Presidents' annual reports abounded with headlines: "Freshman class ten per cent larger than last year," "The largest graduating class in our history." Frequently discreet and dignified advertising solicited new students. Field-agents were employed to visit the schools and present the attractions of the colleges. Even the institutions that were publicly stressing the close contact between professor and student and the other advantages of the "small college" were taking all the candidates that they could get under the lax entrance requirements that tended to prevail.

After the war, for economic, professional, and other reasons, the entire situation changed, almost over night. The doors of the colleges were thronged with applicants for admission. At first those doors remained wide open, and great congestion ensued. Many a college found its student body doubled in less than a decade. Small colleges began to forget the advantages of their smallness and to dream of becoming large colleges, and large colleges of becoming universities (415). There was more than a touch of academic megalomania.

In one State the university attendance has increased, in fifteen years, twice as fast as the population (211). Between 1916 and 1922 there was an increase of 26 per cent in the number of regular students at the colleges and universities of Massachusetts. Throughout the country the number was increasing at the rate of 6 or 7 per cent a year (253). In 123 institutions the total enrolment increased 14 per cent in 1922. The numerical gain in one year at some of the larger State universities exceeded what used to be the total enrolment of the old-time New England college (8). But this sudden accretion was the culmination of a long and steady trend: between 1850 and 1906,

while the population of the country increased about three times, the number of college students increased at least forty fold (27). Enrolment in liberal arts colleges has increased over 500 per cent since 1890 (11).

To sum up these and other figures: The population of the country increased from 1900 to 1910, 21 per cent; collegiate enrolment increased 85 per cent. From 1910 to 1920 the population increased 14.9 per cent; collegiate enrolment increased 96 per cent. For each million of the population in 1900 there were 1224 college students, in 1910 there were 1900 students, and in 1920 there were 3236 college students (210). While college attendance increased by 85 per cent between 1910 and 1920, the number of graduates rose only 73 per cent. The enrolment of men in 1922 represented a gain of 125 per cent over 1910; but for women the gain was 160 per cent (271).

Now once more the situation is changing, this time more slowly. On the one hand, the number of candidates for admission has not continued to increase in quite the same ratio as a few years ago (8). On the other hand, the colleges have begun to awake to the realization that they can, if they wish, choose their students purely on a basis of individual fitness and promise. There has been some hesitation about the exercise of this privilege, and there has been even more reluctance about the formal adoption and public announcement of such a policy of discrimination. The mere suggestion of the idea in several high places was followed by an outburst of indignation from other high places, and a heated argument was carried on in the newspapers between various college presidents (358). In this argument the key-word was Democracy.

Many educators have observed that there is not room for all the boys and girls who want to go to college, or think they want to go, or whose parents want them to go. Are we then to continue indefinitely the expansion of the colleges in size and number in a vain endeavor to keep pace with the multitude of candidates who consider a college degree or a period of college residence as a desirable commodity for any one of many possible and often ulterior reasons? To this, one thoughtful teacher after another has made answer that the colleges have already passed the saturation point and are approaching the danger point at which the entire purpose of higher education is threatened. They say that mass production results in standardized products, and that classes are so large that there is little opportunity to guide and develop the individual, whose per-

sonality and promise not only receive no commensurate attention but are actually restrained and stifled by the inert mediocrity that surrounds him. That standards of progress and achievement are determined by the average and the swift are made to keep pace with the slow (51, 72). That, as compared with the German gymnasium, where the teaching and the tests are intended chiefly for the able boy, we sentimentally temper the wind to the shorn lamb, to the student who will confess, often, that he goes to college mainly for athletics and fraternities (1, 305). That teaching schedules are so heavy that there is little time or energy left to pursue research or to nourish the life of the spirit. And they wonder whence the leaders and the pioneers of another generation are to come. They argue that it is better for the race, the nation, and the individual to really educate one genius or ten men of gifts and promise than to try to educate a hundred morons, better even for the morons. Nothing is gained for society by spoiling a good workman in the effort to make him a scholar (397).

Nor has the element of expense been left out of consideration. It has been argued that our schools are becoming top-heavy and that secondary and collegiate education is becoming so expensive that there is danger of a breakdown of the educational system (211, 284). This argument is usually met, however, by reference to the amount that Americans spend annually for chewing-gum, which seems to be enormous: at least the statement is made that we spend as much for candy and chewing-gum, or for tobacco, cosmetics, and chewing-gum as for our entire educational system from top to bottom (284, 378). But the public and the alumni, who between them, directly or indirectly, foot the bills, are beginning to ask: What proportion of our college students is really entitled to a thousand-dollar-a-year education for two hundred a year? What are they getting out of it that justifies them in asking us to pay for it? One of these alumni writes:

"I am not in the least allured by the prospect of helping some charming graduate of Groton (most of them *are* charming) to get through college, so he may capitalize his football fame in a Wall Street bond house. Nor am I in the least allured, I fear, by the prospect of helping Isadore Kopinski's boy through Harvard, so that he can get a job as sub-master in a public school instead of helping papa in the cigar business. But I would be willing and glad to help to the limit of my financial ability any boy, whether Cabot or Kopinski,

to go through college if he were genuinely interested in learning for its own sake, or if he showed some undoubted ability not only to assimilate learning but to handle it creatively so that he gave promise of adding something, however slight, to the world's precious stock of humanistic knowledge, or philosophy or art. *He* is the boy for whom a liberal college should exist. The rest are dead weight, or worse" (123).

But the main question concerns, not the expense, but the effect of indefinite expansion and mediocre standards upon the colleges and their students, upon the educational system and its task. It is claimed that a large proportion of those seeking a college education do not really want what the college is primarily intended to give. They are urged by other motives than intellectual ambition (231, 298). College education in America is a commodity that is sold somewhat after the manner of life insurance and patent medicines (75). Nor is it always a good bargain for the student. Many of them are not capable of receiving much benefit from college training; it may easily lead to their failure and unhappiness in life (253, 305, 357). The task of the college is to train leaders (211). There is a large body of competent opinion to the effect that ten to forty per cent of our college students are either totally unfit or disqualified by nature or previous training to accomplish what we now expect of them (253).

When a university numbers its students by the thousands and the tens of thousands, when it admits almost anybody and teaches almost anything, when its classrooms are manned, as is inevitable, by inferior teachers, whenever more endowment or appropriation must be sought in a vain effort to keep pace with its numerical growth, when each tries to outstrip its rivals in the externals and trappings of education, then the very character of the university is bound to change for the worse, and it is not far from the gruesome picture which Sinclair Lewis paints in *Arrowsmith*:

"The University of Winnemac is at Mohalis, fifteen miles from Zenith. There are twelve thousand students; beside this prodigy Oxford is a tiny theological school and Harvard a select college for young gentlemen. The University has a baseball field under glass; its buildings are measured by the mile; it hires hundreds of young Doctors of Philosophy to give rapid instruction in Sanskrit, navigation, accountancy, spectacle-fitting, sanitary engineering, Provençal poetry, tariff schedules, rutabaga-growing, motor-car designing, the

history of Voronezh, the style of Matthew Arnold, the diagnosis of *myohypertrophica kymoparalytica*, and department-store advertising. Its president is the best money-raiser and the best after-dinner speaker in the United States; and Winnemac was the first school in the world to conduct its extension courses by radio.

"It is not a snobbish rich-man's college, devoted to leisurely nonsense. It is the property of the people of the state, and what they want—or what they are told they want—is a mill to turn out men and women who will lead moral lives, play bridge, drive good cars, be enterprising in business, and occasionally mention books, though they are not expected to have time to read them. It is a Ford Motor Factory, and if its products rattle a little, they are beautifully standardized, with perfectly interchangeable parts. Hourly the University of Winnemac grows in numbers and influence, and by 1950 one may expect it to have created an entirely new world-civilization, a civilization larger and brisker and purer."

It does not appear to what extent the State universities have influenced theory and practice elsewhere, but certain it is that in the matter of limiting enrolment they have a problem of their own. Such an institution is supported by public taxation and is an integral part of the school system of the State. There is an a priori assumption that any graduate of any high school in the State, good, bad, or indifferent, can go on, without let or hindrance, to the university of the State, that all persons who have the desire and are not actually incapacitated physically or mentally are entitled by law to advanced education. Some educators, writing from the point of view of the State universities, admit that "almost any one" can enter and that their institutions have grown so rapidly that they are approaching the breaking point, but hold it inconceivable that a university controlled by the State should ever limit the actual number of students accepted (90). Others have sought a way out by suggesting a system of scholarships, open to all but awarded only on merit. One Western State proposes limitation of enrolment and the assigning to the various counties of as many scholarships as the university can accommodate students, in a ratio fixed by the proportion that the number of high school pupils in each county bears to the total number of high school pupils in the State (90).

The State universities are important for our discussion, not only because they form a large and significant group in themselves, but also because it is chiefly upon this very rock of duty to the public

that American educational policy has split so far as admission to college is concerned. On the one hand we have the practice of many State universities and other institutions that accept all candidates unless it can be shown that they are not qualified for admission. On the other hand we have certain endowed institutions that can accommodate only a half or a third of those who apply, that insist upon the applicant's making out a positive case for himself, and that can and do reject a candidate who has met all the formal requirements and accept in his place one who is not entirely prepared but offers more promise. Both sides are defended by competent academic authorities.

It is not so easy as some think to refuse the qualified or nearly qualified candidate or to defend his exclusion in the court of public opinion. The pressure upon the colleges is so constant and comes from so many aspects of American life. It is not merely a matter of the idle boy who wants to have a good time in college. Perhaps in the majority of cases the motive, individual or parental, is largely social, but there is a view to later life as well as to college life. Even the lad of seventeen may feel that throughout his career, in his office, in his club, in his home, a college background would give him a sense of fitness, of belonging, and that if he should miss it he would always be conscious of a certain handicap. But there is much more than this. New professions have arisen, and the old professions, law, medicine, teaching, the ministry, have advanced their academic requirements, often by means of State laws. If it is possible at all to be admitted to a profession without a bachelor's degree, it is now almost as difficult to rise from the ranks as it is to attain a commission and a career in the army without going through West Point. Even big business is now inclined to recruit its prospective officers directly and systematically from the colleges.

These professional requirements and these personal ambitions are in every way laudable, and it is the duty and the desire of the college to meet them as fully and as wisely as it can. But in justice to itself and its mission the college must not attempt to do more than it can do well. There are few colleges in the United States in which the classes are not already too large for the most effective teaching. If the average college wishes to avoid being overcrowded, lowering its standards, leaving much of its teaching to inexperienced instructors, abandoning individual training, turning its professors into machines of the office and automatons of the

classroom, it must finally restrict its numbers. Indefinite expansion, in campus, buildings, equipment, endowment, faculty, is not everywhere possible.

Generally, as yet, no limit is set, and many of the larger institutions, especially, of course, the State universities, and many of the smaller colleges show no inclination to do so. But in recent years a number of the endowed colleges have determined an approximate figure, publicly or privately, officially or unofficially, for their undergraduate enrolment (273). Sometimes the number is restricted, without announcement and rather automatically, by dormitory and other rooming accommodations, especially, one may suppose, in the women's colleges and in colleges situated in small towns. At other institutions the number is determined by a full consideration of capacity with regard to plant, budget, and faculty. The number so determined is publicly announced, the size of the entering class is regulated by that figure, and only the most promising of the qualified candidates are accepted. Rejection in such cases does not necessarily mean that a student is not prepared for college, but that someone else seemed to the authorities to be better qualified to do academic work of high order. Among colleges which have adopted some such policy are Bowdoin with 500 students, Lafayette with 1000, Princeton with 2200 (293, 295), Smith with 2000, Vassar with 1000; Harvard with a freshman class of 1000, and Yale with one of 850. Other colleges also are faced with the necessity of setting such limits: Brown, Chicago, Cornell, Dartmouth, Mount Holyoke, Swarthmore, Williams, and many more (253).

Deliberate Selection.—Whenever it becomes necessary to place any limitation, specific or approximate, official or unofficial, upon the size of the undergraduate body, at that moment admission becomes competitive and a system of selection goes into effect: it remains only to make the system as fair and intelligent as possible. Of course every college has some standard of admission and to that extent uses and always has used a "selective method." But the latter expression has taken on a specific meaning, and many colleges are timid of the term and reluctant to employ the method.

Selection is of two kinds: one refusing entrance to the less fit, the other refusing to continue him on the rolls after he has proved himself less worthy (273, 344). The first is already practised by some institutions that believe in discipline and are so circumstanced

that they can afford to be courageous. The second, which has always been more or less in operation, is a much longer process, and, while it is perhaps a trifle surer, is much more expensive, much more wasteful, much more painful (344). Selection at entrance means that a school graduate is not automatically promoted to college merely because he has satisfied certain minimum entrance requirements, but that he becomes a candidate in active competition with every other candidate that wishes to enter in any one year the college which he has selected. The college then selects the entering class from the best prepared of the applicants, taking into account all the records and all the information available. The method most commonly used is to take only those who are in the upper part of the high school graduating class. But to be most effective the system of selection must be elastic, frankly eclectic, and even personal in its operation, conditions that are not met by proposals to refuse or accept certain fixed percentages of graduating classes or of the total number applying for admission. Otherwise education cannot center upon the individual and enable him to emerge from the mass. If a selective system is to operate successfully the college cannot admit by large groups or percentages or by means of any purely mechanical process: every individual applying for admission must receive individual consideration. Selection must mean individual selection if it is to have any real value.

Princeton's practice before the new and frankly individualistic scheme was introduced will serve as an illustration of mechanical selection. Admission was on a basis of 15 units of College Entrance Board examinations. All those who passed with 15 points were at once accepted. Then, if there was more room, those having 14.5 would be admitted, then 14, then 13.5, and it sometimes went as low as 13. Any clerk could administer such a method of admission (293). Now Princeton enquires carefully as to each candidate's school preparation, his native ability, his character and promise. This information is obtained from Board examinations, an elaborate blank filled out by the school principal, a personnel blank filled out by the candidate himself, three testimonial letters, preferably from Princeton graduates, and psychological tests. When so many data are used in this way it happens frequently that a candidate with the full 15 Board units is rejected and a candidate with failures in entrance examinations has them written off and is admitted without conditions (293).

Columbia may be taken as another example of the selection of individual undergraduates on the basis of all the information available. The new method at Columbia is "based upon the principle that fitness for college work is determined by (1) Preparation, (2) Character and Promise, (3) Health, and (4) Intelligence" (105, 182). The candidate must present a complete high school record meeting fully the requirements for admission, and of certificate quality, *i. e.*, at least 10 per cent above the passing mark in a preparatory school of high standing. The usual principal's detailed recommendation, the candidate's application, which bears evidence of his interests and activities in and out of school, and other estimates of intellectual, moral, and social qualities, secured from at least three references, are required. Each candidate must also state in letter form why he is going to college, particularly why he wants to go to Columbia, and his plans for a life career. A complete health record must also be filed. If all these demands are satisfactorily met a candidate is permitted to take the intelligence examinations in place of the entrance examinations, if he so wishes (253).

Likewise at Cornell, under the system inaugurated in 1925,¹ entering students are selected on the basis of both scholarship and personality. The entrance committee seeks information regarding the applicant's scholastic standing, in addition to that furnished by his marks. To this end questionnaires are sent to both the applicant and the principal of his school to find out in what quarter of his class the applicant stood, whether he had failed in any courses, what his attitude was toward his work, whether he really wanted an education, and similar information. In order to obtain some idea of the student's personality questions are asked concerning his participation in athletics and outside activities, his home environment, his father's occupation, education, and so forth.

The general idea of individual selection, of choosing from the field of candidates only those who are considered the "best risks," has been making headway since the war and will doubtless continue to spread as more colleges reach a position where they feel strong enough to adopt it. Eleven per cent of the colleges now (1925) use some such selective procedure as has been described, as against one per cent in 1913 (11). Experience shows that such a system leads directly to an improvement of scholarship in the freshman class, and consequently throughout the college (295).

¹ *New York Times*, 25 October 1925, p. 17.

Priority of Admission.—Any individually selective process of admission is interfered with and to some extent set aside if prior rights are given in advance to any particular type or class of candidates. There are two chief forms, both of which are apparently, and properly, disappearing. In the one, all sons of alumni are taken out of competition with other candidates and are practically assured admission if they can satisfy the minimum entrance requirements. This practice prevails only at some of the endowed colleges, including Dartmouth, Leland Stanford, and Yale. At other institutions such preference is allowed merely to tip the scales in choosing between candidates whose other qualifications for admission are approximately equal, for example at Princeton (292).

Such priority is a part of the increasing influence which alumni wield nowadays in the affairs and policies of their alma mater, the growing strength of alumni organizations, and the desire of the colleges to retain the active interest and support of their graduates; and all of these tendencies are rather directly the product of the endowment campaigns which in recent years have become so prominent a factor in the expansion and development of American colleges and universities. But from giving preference to the son of an alumnus it is only a step to giving preference to the son, relative, or friend of an *influential* alumnus, trustee, or rich benefactor of the college, and then admission is by pull and a kind of academic graft rather than by merit. Many such cases are known already.

It was proposed recently at Harvard to give entrance preference to sons of alumni, but the suggestion was vigorously opposed by the alumni themselves on the ground that it would tend to make the college a family affair instead of the public and national institution that it has always been; and that, if the sons of the Crimson cannot hold their own on an equal footing with those who are not Harvard born, they do not deserve to get in. At Princeton a similar proposal, offered by a committee appointed in 1922 to consider the matter of selective admission, was voted down by the faculty (292).

The other chief form of priority is that established by early enrolment or registration. It operates about as follows at Vassar, for example. Long before she is prepared for entrance a girl is registered by her parents at the college, and a small registration fee is paid. She may even be registered also at several other colleges, so that an option may be left open until the last moment, or so that she may find admission elsewhere if she fails to make

the college of her choice. If, when she is ready for college, she can meet the entrance requirements, she is given preference over other candidates who registered after she did. In other words, among those applicants who pass the College Board examinations, admission is granted chiefly in order of application, and first comers are first served. A barely prepared candidate may be accepted because she applied early, and a well qualified candidate may be rejected because she applied late. In each entering class 100 vacancies, about 30 per cent, are held open to be filled by competition in the Board examinations, but, as for the remaining 70 per cent, an applicant is not likely to be accepted unless she was registered at least five years before she is ready to enter college. A mere description is sufficient condemnation of such a system. And, indeed, Vassar has decided to abandon it in 1927.

A third, but very limited, form of priority depends upon the geographical distribution of students in order to maintain the national character of a college. At Dartmouth "admission will be given first to all properly qualified members of the following groups: residents of the State of New Hampshire, residents of districts west of the Mississippi, residents of districts south of the Potomac and Ohio rivers. Geographical distribution shall be a prevailing factor in selecting among groups of otherwise equally desirable applicants" (232, 240). And of course a number of colleges give some preference to residents of their respective States.

Classification of Candidates.—Under the selective process of admission, which is making ever more headway, especially in the endowed colleges, the following propositions tend to establish themselves. The personnel of any freshman class should be made up at one time, at least within a period no longer than that between June and September. Every candidate should be in competition with every other candidate, and their qualifications should be considered relatively as well as absolutely. To make the competition equitable, to facilitate selection, and to ensure the acceptance of the most promising students, the candidates should be grouped into classes, so that each applicant can be compared directly with others in about the same degree of preparation and ability.

At Princeton, where limitation of enrolment and a selective system of admission are officially and more frankly accepted than at most colleges, candidates are grouped and admitted in the fol-

lowing manner, using the figures for 1924 as a basis (293, 295). It should be noted that 15 entrance units are required at Princeton, and that 60 per cent is the passing mark on the College Board examinations. In June and September, 2026 preliminary candidates took examinations; about 1500 applied for immediate admission; 629 were admitted.

Of these 629, Class A consisted of 256 men who passed their examinations in June with a weighted average of 70 per cent or better in all subjects. Class B consisted of 36 men who passed all subjects with a weighted average between 60 and 69 per cent. Class C consisted of 92 men who had a weighted average of 70 per cent or better, but one failure not below 50 per cent or two failures not below 55 per cent. This class is to provide flexibility enough to cover students who have a natural aptitude for certain subjects and are distinctly backward in other subjects. Their failures are written off and they are admitted without conditions. Class E is composed of special cases, men of ability and promise but with irregular preparation, perhaps even without a single College Board unit to their credit. In this class 4 were admitted in June. In the classes A, B, C, and E, 388 were admitted in June, all without conditions.

Early in the summer some 200 candidates with obviously insufficient preparation were eliminated by letter and advised to take another year to get ready for college. From the remaining candidates 241 were selected in September immediately after they had again tried the entrance examinations. Of these, 229 were deferred cases from June, known as Class D; 222 were admitted without conditions, and 7 with conditions. The remaining 12 were special cases, belonging to Class E; they were admitted on trial and with conditions. There were also 17 men repeating the first year, making altogether a freshman class of 646.

There is no suggestion that just this system would be advisable at any other institution, but it has worked splendidly at Princeton, and the general principles seem sound, and fair to all concerned. The details of classification would naturally vary at different colleges, depending upon many considerations, but chiefly upon the number and quality of the candidates. They are possible at all only upon the presupposition that the college is free to select its own students. And they will have to be changed in time at Princeton if the demand for admission continues to increase in the ratio of recent years.

A less elaborate but not dissimilar classification was put into operation at Cornell in 1925. In the College of Arts and Sciences the total new registration is limited to 500 in one year. 750 actual applications were considered, and 455 of these were finally registered as students in the college, leaving room for 45 more at the beginning of the second term. On the basis of all the information available from school records, questionnaires, and other sources, the applicants were divided into three classes. Those who were very good were notified of their acceptance on condition that they satisfy the required 15 units entrance credit. A small number of very poor ones were rejected at once. The rest, by far the greater number, were held for consideration until the middle of August. Between August 1, the last date of application for admission to the college, and August 15 the faculty committee in charge went through this group and accepted enough to fill the quota.¹

The Question of Democracy.—In the second section of this chapter, devoted to The Purpose of the College, we discussed what we called the aristocratic and the democratic schools of thought regarding higher education, and the compromises to which the American system has been driven. Throughout the sections that followed there appeared a rising tendency in our colleges to exercise more discrimination in their admission policies, to select their students more deliberately and individually on the basis of ability, application, and purpose, to refuse academic opportunity to the mediocre student whose interests and aims are commercial or social rather than intellectual and whose presence is bound to retard the machinery of the college and stifle the life of the spirit. Those who uphold this selective idea do not, for the most part, wish to be forced into taking sides as between an aristocracy and a democracy in education: in their popular meanings those words are in no wise involved. But inasmuch as the charge of snobbishness, of social exclusiveness, of fostering class discrimination and class dissension, is the chief charge against those who favor a positive selective system, it is necessary for them to define their attitude toward democracy in education.

In the first place, they claim, or some of them claim, that even politically a pure democracy is neither desirable nor practically possible. Democracy has become a symbolic god in America, and in its worship there is much of ignorance, prejudice, sentimentality, and

¹ *New York Times*, 25 October 1925, p. 17.

superstition. Men are not created equal in native endowment, and even if our political institutions guarantee equal opportunity (which they do not), they are very far from guaranteeing equal attainment to all. Several recent writers have been able to interpret the "self-evident truth" that all men are created equal by reference to the Virginia Declaration of Rights, which was adopted only a few weeks before the Declaration of Independence, and which says that "all men are by nature equally free and independent," or by reference to Jefferson's own bills before the Virginia House of Delegates: a bill to abolish primogeniture and so free the land for the people; a bill which became the Statute for Religious Freedom; a bill to curb human slavery; and a bill establishing a system of free education. In his *Notes on Virginia* Jefferson describes the difference in mentality between the negro and the white man, and recognizes the fact that one white intellect differs from another. He did think that ability is equally distributed through all classes and that only opportunity and education are necessary to release it—a view, however, with which modern science is not inclined to agree.

An enlightened community has no more solemn obligation than that of a "system of public education available for all persons capable of profiting thereby," as the new "Education Law" of England puts it. But universal education cannot mean universal higher education. True Americanism does not stand for an equality that disregards differences of talent, but it does stand for that democracy of opportunity which leads to an aristocracy of achievement (6). It is no denial of educational equality for a college to insist upon high standards for those who enter its gates, for such an insistence encourages the very abilities which the college should stimulate for democracy's safety (152, 199). In one sense the purpose of the college is not to encourage the democratic spirit, but on the contrary to check the drift toward a pure democracy; what is needed is an aristocratic and selective deomocracy, and the function of the college should be insistence on quality (16). The democratic spirit that the college needs is a fair field and no favors, and then the more severe and selective it is in its requirements the better (16, 304). Indeed, from one point of view the very democracy which keeps open the doors of the college to those students whose aims are not primarily intellectual may itself lead directly to a most undemocratic class system. To a large extent the college has already been put in the false position of standing for the hallmarks of "class" rather than for real intellec-

tual achievement (238). The colleges are crowded with students who are there mainly for the social and commercial prestige which the academic background is supposed to offer: a legitimate aim, perhaps, but not the chief end of college. The collegiate degree is the outward stamp of a certain social status (231). Democracy in American college life is defined as "our ill-advised belief in the universal efficacy of college education to make a good piece of furniture out of a poor piece of wood" (144).

"Democracy, more than any other form of government, requires high-class political leadership, because in a democracy this leadership has to attain recognition on its own merit and has to make good its claims in the face of widespread potential opposition. Any educational system that tends to leave undeveloped the potential leadership of the people cannot long serve a democracy" (232, 198). What is democracy's ultimate goal? "I answer that it is a country, state, and world in which each individual does what he can do best and is rewarded according to his service. Each will be not only tested from childhood on, but assigned his grade, and be assured the place that allows the freest scope for doing the best that is in him. We do not begin to realize the difference between individuals outwardly nearly alike" (161). "The educational ideal is not the ideal of an easy equality on a low level of achievement. We are faced too constantly by the fact of individual differences to suppose that education ought to expect or aim at any equality except the equality of Pasteur's definition of democracy—'the opportunity to make the most of oneself for the common good'" (196).

3. DISCUSSION

There is no need in this chapter to discuss all the details nor to repeat all the acceptable arguments of the preceding chapter. Indeed, many of the Committee's own opinions and arguments have appeared there in their proper connections. What the present report has to suggest in regard to college admission can be grouped about the idea of individual selection. Its lack is the most glaring fault in our college admission practice; its introduction as a positive, active, and universal doctrine would help to remedy many ills of our educational and intellectual life. And of our national life as well: communal ignorance, prejudice, and intolerance, social tyranny, authoritarianism, vulgarization of values, bureaucracy, and, above all perhaps, standardization. There can be no real liberty and no real

progress without social freedom and recognition of a minority's right to existence and expression, without individual thinking and individual leadership. Mass production means standardization and a mechanized society. Art, literature, learning, government must languish so long as the individual is subordinated to the mediocrity of the mass. And for these conditions much blame rests, either negatively or positively, upon the colleges, where, as Nicholas Murray Butler puts it (63), "we have, on the one hand, standardized and endowed mediocrity, and on the other hand we have given rein at public cost to every sort of freakishness and irrelevance." Our system has done much to stifle individual initiative and individual expression, and the tendency is growing, despite the fact that nothing could be more dangerous to the country or to civilization.

Indeed, one of the chief triumphs of civilization has been the discovery of the individual and his emergence from the family, the tribe, the state: the foundations of modern education are laid upon the individualistic philosophies of Rousseau, Pestalozzi, Froebel, Hegel, and Herbart. No amount of theorizing about democracy will alter the fact that individual capacities vary enormously. Herbert Spencer observed that mankind is made up of a few clever individuals, many ordinary ones, and some decidedly stupid (64). And actual tests seem to show that even in a given class at school or college, where equals are supposed to be grouped together, those at the top surpass those at the bottom *many times over* in qualities that promise attainment and leadership (347). Democracy means, primarily, equality before the law and full freedom for the development of talent of any kind.

American education has suffered from the domination, conscious or unconscious, direct or indirect, of political and sentimental, as well as educational, theories that are demonstrably false. If the views of some men are to prevail the intellectual life of the country is doomed; everybody except the sheer idiot is to go to college and pursue chiefly sociology, nature study, child study, and community service (29, 162)—and we shall have a society unique only in its mediocrity, ignorance, and vulgarity. It will not do to dismiss lightly even so extreme a view as this; it is too indicative. Such influences are very strong, their pressure is constant; and if education has largely failed in America it has been due primarily to them.

The popular view is that all men are equal, that the son of a farmer

or a laborer has an even better chance of success, given equal educational opportunity, than the son of a professional man or a business executive, and that one child is as "good" as another. The converse of all these statements has been proved again and again (194). The only danger to democracy lies, not in the special education of the few, but in the possibility that equal opportunity may not be offered to those of poor and lowly origin. The doors of the college must be opened wide for the talented youth of whatever station in life.

There is a widespread feeling that limited enrolment and deliberate selection are undemocratic and that the endowed colleges which practise them are snobbish. But those very colleges would—and have—bid against one another with offers of free tuition, scholarships, and other aid to get the gifted son of a Lithuanian washerwoman. His academic career deserves to be recorded for its own sake. At the age of 10.5 he was an immigrant with only four months' Russian schooling and no knowledge of English. He led every class in a Boston grammar school and finished the eight grades in 3.5 years. At 14 he entered the Boston Latin School, and graduated four years later, having always stood near the top of his class. His College Board marks were all over 80 and some over 90. In college his freshman grades were 97, 98, 99, and 100, leading the class. At 22 he graduated from college with honors, three prizes to his credit, and a general average of 90 for the four years, despite a long and serious breakdown due to overwork and undernourishment. Now he is going on with graduate work. Through all these years he has earned all his expenses, as seller of newspapers, delivery boy, canvasser, farmhand, janitor, cook in a lumber camp, porchman at a summer hotel, anything, averaging even during the school year forty hours a week of physical labor. On one occasion he walked, with lifts, 320 miles for a job which did not materialize. The most exclusive colleges welcome such students with enthusiasm. That is the very finest flowering of the democratic idea.

But to nurse and carry along for four years a student who could not graduate from college without such spoon-feeding is no real service to the student himself, to his fellows, to the college, or to American education. A large percentage of our college graduates, not to mention those who have fallen by the wayside, have not gained from college a return commensurate with the amount of time and money expended. And they have retarded the entire academic machine. They have threatened to frustrate the college's highest mis-

sion. Popular education, directly, is not the task of the college; its field is the training of leaders in science, industry, and government. For admission to the college, character, application, determination, and ambition, important as they are, should not be accepted as a substitute for mental capacity. The college cannot furnish brains, and the candidate without intellectual capacity, intellectual curiosity, and intellectual aims should be sympathetically excluded and directed into other paths, which will surely prove more advantageous to him.

But on the other hand it is almost as reasonable, though more difficult, to exclude the mere dig, grind, shark, poler, swatter, or whatever he is called at the moment, the humorless unimaginative plodder who lacks initiative, personality, and creative energy. Our whole system, including examinations, is at fault when he is permitted, as he often is, to go through college with high grades. Better perhaps, certainly more wholesome, Matthew Arnold's haunt of young barbarians all at play than the college where the pace is set by this monster of "machine-like assiduity," this "monument of misapplied energy," as one college professor, in his indignation, describes him.

The high schools must remain national and all-inclusive. And they must provide for the advancement to higher education of all pupils, whatever their social status or origin, who have the capacity, the desire, and the means to progress into college with profit to themselves and to society. And it is the duty of the colleges to make it possible for such pupils to advance, provided only that the schools will give them a fair amount of basic preparation. As Huxley has said, "no system of public education is worth the name of national unless it creates a great educational ladder with one end in the gutter and the other in the university." "To make the wise man," said Emerson, "the state exists."

The high schools can try out and test a pupil's native capacity and fitness about as well as the private schools. And they can give as much in the way of indispensable general training as is necessary to pursue college work successfully. The problem is to secure and to measure this broad preparation and this individual capacity. A certain degree of flexibility is highly desirable in the public schools, and this includes an adaptability to local conditions. In the larger centers of population one high school, in an industrial district, may well concentrate on the more vocational subjects; another, in a district where the needs are different, may well concentrate on college

preparation. In the smaller communities one high school will have to continue preparing as well as possible for both purposes. But all proposals to divide the public school system of the country into two distinct types of schools are to be rejected. The primary duty of the public schools is to the public, to mass education, to the elimination of illiteracy, to preparation for normal, routine life.

There are at least four ways by which, under this premise, a dovetailing of high school and college, with their different aims, can be encouraged.

1. Through the selection by the colleges of only those pupils who have shown sufficient application, interest, and native capacity to bridge the gap.

2. Through a practical degree of flexibility in the courses and types of high schools.

3. Through the striking of a certain balance in the courses of the schools and a reasonable adherence, for all pupils, to the fundamentals of education.

4. Through college entrance examinations of the comprehensive type.

The other method, the dividing of schools, courses, and pupils, down to the elementary grades, has been tried nationally, on a large scale, and abandoned. Before the war Germany had practically two educational systems, one for training the masses, one for educating the classes. In 1900 the "public schools" were attended by 8.9 millions, or 90.8 per cent of all the children between the ages of six and fourteen years. The remaining 9.2 per cent attended middle, higher, and private schools (308). From this small minority, with its different schools, courses, and social background, came Germany's university students. Educational predestination began at the age of six, and very rarely did or could even the brightest pupil, with awakening intellectual interests, change from the majority to the minority. In place of this caste system there is now in Germany the uniform *Einheitsschule*, which educates all pupils together, but deliberately selects the most promising, of any social rank, and permits them equally to go on to the university. Even the socialists are satisfied with the democracy of this procedure, which gives their children an equal chance with all others, determined only by ability and application.

Indeed, Germany has, perhaps, advanced further than any other country in the work of selecting gifted children and giving them

special educational opportunities. Since the war it has become almost an accepted principle of national policy, especially in the larger centers of population (131). The pupils are selected by mental tests, supplemented by the judgment of teachers. In the past five or six years, experiments of a similar nature have been reported from several sections of the United States, in each case showing a remarkable rate of advancement for the selected classes as compared with the ordinary classes, running to more than 100 per cent superiority (194). There has always been, of course, a certain degree of elimination, voluntary or involuntary, and of failure of promotion, but on the whole American standards have been those of the great majority, and there has been scant general and effective recognition of the indisputable fact that human beings vary enormously in mentality and mental capacity. And such problems as that of the rapid advancement of gifted children, as compared with enrichment of curriculum, have received almost no attention.

It is doubtful if there would be much value in any statistics that might be gathered to ascertain whether students admitted by examination do better or worse in college than those admitted by certificate. Too many other elements enter to justify comparison between one college and another. And in any individual college, if any considerable number is admitted by examination, then the remainder would comprise the pick of the certified candidates. But usually in such an institution those admitted by examination are those who were not able to get in on certificate. Whenever such data have been gathered in the past and conclusions drawn, those conclusions have been disputed or subjected to different interpretation (35). One of the best attempts, however, was made to cover the University of California for the decade 1884-1894, during which period the average number admitted by certificate was equal to the number admitted by examination (379). Those admitted on examination, even with one condition, did better work in freshman year than those admitted on certificate, but those admitted on examination with two or more conditions did not do so well as those admitted on certificate.

Neither system, nor any other system, is perfect. But there are certain advantages in examinations that cannot be waived without distinct loss. Admission by diploma alone connotes always a degree of concession, a lack of individual selection, an uncritical acceptance of the judgment of a variety of schools and school teachers.

Is there significance in the fact that, whereas the colleges which require examinations will not accept certificates as an alternative, the colleges which accept certificates will usually admit freely on examination by the College Entrance Board? Is not this an indication that the certificate is believed to have less value? Furthermore, it has been claimed against the entrance examination (72) that, by reason of the reviewing which it necessitates, it requires almost a year more preparation than admission by a certificate which purports to cover with equal authority the same amount of preparatory work. Why is review necessary at the end of the school course under one system, and unnecessary under the other? Entrance requirements are to test ability to use knowledge and qualifications to pursue the studies of college, tests that are not satisfied by the mere record of courses taken in the past and, as confessed, partially forgotten. Surely the diploma of the high school should certify only to the fulfilment of its requirements and not to qualifications for the more advanced and different work of the college. The two are not the same by any means, and the diploma that attempts to cover both has little value for the college.

The best answer to the question as to the respective merits of the two methods of entrance, diploma or examination, to the question of the relationship between high school and college, to the question of vocational subjects, to the question of individual selection, seems to lie in the direction of the "new plan:" examinations in four fundamental subjects and certificates for the rest. But with these must be taken into active account complete school records, testimonials, and all available information regarding intelligence, general or specific ability, diligence, character, personality, and promise, so that the process of admission may be made frankly selective and individual. Entrance conditions should be completely eliminated. A candidate is either prepared for college or he is not. If he is admitted with deficiencies they should be automatically cancelled by his admission. In other competitions handicaps are imposed upon the best contestants, if they are imposed at all; certainly not upon the poorest.

But to make such a scheme effective and to accomplish what we have in mind certain other things are necessary. It would help the entire educational system if the "old plan" examinations were abolished. The comprehensive type of examination should, if the questions be properly set, be a better test of the student's ability,

qualifications, and real grasp of his subjects. And it tends to harmonize in a desirable way the discordant aims and methods of the high school and the liberal college. But at least and for the present the new plan should be placed on an equal footing with the old plan by taking from the latter the privilege of extending examinations over a period of two or more years. All candidates should be examined as to their fitness for college at the time when they wish to enter college. And all candidates should be compared, for selection, at the same time. With its concessions to the schools, its partial recognition of certificates, its flexibility, and with its present relative disabilities removed, the new plan might become feasible and acceptable even in the State universities. But the comprehensive examinations must be made and kept truly comprehensive, or their advantages will tend to disappear. For example, the comprehensive examinations in German that are offered now by the College Board are, without any apparent justification, quite identical with the Board's old plan examinations.

Despite the clear advantages and conveniences offered by the services of the College Entrance Board, it is not necessary that its examinations should be universally adopted. There is, indeed, no cogent reason why the purposes and methods of all American colleges, or consequently their methods of admission, should be identical or even uniform. The small, purely local college in a rural and backward community has a different but relatively not less important task than the national university. And the United States will in time reap the benefits of an institutional individuality that has not been possible in European countries where universities and schools are more under the standardizing control of the state. Experiments such as are associated with the names of Johns Hopkins, Amherst, Clark, Rice (300), Reed (398), Antioch have great value whether they themselves are successful or not. The standardization of recent years that has been promoted by such a number and variety of national organizations has not been an unmixed blessing. It has raised standards, broadcast ideas and experiences, improved methods, and had many good results, but at the same time it has tended to limit initiative and freedom of experimentation, and to that extent has hampered educational progress.

The experiments with psychological tests and the collection and analysis of data should be continued, but for the present their application should be restricted to that of a supplement or check.

The chief danger from intelligence tests is that too much may be expected from them. There are very valuable qualities, intellectual as well as social and moral, which they cannot cover. A high scorer may be pretty much of an ass, crammed with useless information, but deficient in attitude, intuition, taste, originality, creative instinct, reliability, persistence, will, and emotional character. Neither the borders of the human intellect nor those of human intelligence have been accurately mapped, but certainly they are not identical. And even if the present claims as to the agreement between psychological test marks at entrance with academic grades after entrance should be substantiated, the whole case would not be covered. The relation between two groups of statistical data may be one of very high correlation and yet not be direct, or even remotely direct. In our case a direct relation of cause and effect has not yet been established. It is probable that the highest quarter of a college class would surpass the lowest quarter not only in psychological tests but also in cross-word puzzles or bridge. Moreover, mere determination of ability is not sufficient for proper educational diagnosis and prognosis. The college must know not only the candidate's general intelligence but also the amount of work that he has covered and his proficiency in that work, and for these purposes the standard tests must be retained. But it must be said that generally the intelligence tests are steadily improving in quality, and that experiments, particularly, perhaps, at Princeton, show that it is possible to make mathematical and statistical combinations of school records, entrance examinations, intelligence tests, and age, which are remarkably accurate in predicting college performance and have considerable value in detecting avoidable lapses from the predicted performance and in selecting candidates for admission to college. This is the direction in which the best opinion and practice are moving.

The quantity of entrance requirements as established at the better colleges should not at present be increased. The preparatory course is already crowded (135), and any further increase in quantity would be at the expense of quality or would unduly delay entrance to college, graduation, and professional or business training.

A report of this nature cannot go into such matters as the relative educational merits of the classics as compared with modern languages, or such questions as whether algebra is useless as an entrance requirement. All these and many other defenses and attacks

can be found at length and in variety in the literature cited in the Bibliography. It is doubtful if this or any other committee could agree on them, and the decision in such matters must be left to the individual colleges and to time and experience. But the Committee can and does protest against the steady encroachment of purely vocational studies which may inform or train but do not educate, and against their ranking on more or less of an equality with subjects that have vastly more intellectual value—not because the latter are “traditional” (the favorite word of the vocationists), but because they open up the widest and deepest fields to the mind and spirit.

4. RECOMMENDATIONS

The Committee recommends:

1. That in each college a survey be made, on the basis of present and immediately prospective plant, endowment, equipment, and staff, to determine the largest number of undergraduates that can be efficiently taught, with due regard to the desirability of small classes, reasonably small teaching schedules, and the research activities of the faculty. That the number so determined be publicly announced. And that this number be made the basis upon which shall be calculated and considered the alternatives of limiting enrolment and increasing endowment or appropriations.

2. That the number of new students to be admitted each year be fixed in advance by its relation to the total number of undergraduates that can be efficiently taught, as above.

3. That a director of admissions be chosen who shall be an administrative official of the college and permanent chairman of a faculty committee. A great deal of power and discretion should be in his hands as to admission, and his duties should include also familiarity with the schools and interpretation of the college to the schools.

4. That the process of admission be frankly one of selecting the most promising material available. And that quality of preparation receive more recognition than mere quantity.

5. That the candidates be grouped, for selective purposes, into several classes, each to include those of relatively the same degree of ability and preparation. (See page 454, above.)

6. That candidates shall not be graded on such intangible qualities as leadership, personality, initiative, but that intellectual achievement and promise shall be taken as the primary basis for selection.

In addition to examinations and the school records, however, testimonials should be required as to character, personality, and promise.

7. That a scheme of directing admissions, adaptable to the particular needs of each college, be drawn up which will be flexible and intelligent enough to permit the acceptance of a student, for example, who may not be well prepared in his formal studies but yet has shown unusual achievement in the face of difficulties, or one who can offer an excellent record in some subject or subjects, for which he has real gifts, as a counterbalance to insufficiency in some other subject or subjects.

8. That, whatever entrance requirements are adopted, they be viewed and treated as an absolute minimum, not as a normal standard for the average student, to be moved downward as occasion may require.

9. That the colleges plan their work and their entrance requirements for the better qualified among the students of the schools. There should be no assumption that a diploma from a high school is in itself sufficient evidence of ability to do college work.

10. That the college, which alone is responsible for its standards, shall be the sole judge of the qualifications of a candidate for admission.

11. That not less than fourteen nor more than fifteen standard units be required for entrance.

12. That all college entrance be placed upon the basis of comprehensive examinations in four fundamental subjects, with flexibility in the other requirements and acceptance of school certificates for them, plus a full consideration of school records, intelligence tests, and personal testimonials.¹

13. That the four fundamental and required entrance subjects for an arts degree be English, Latin, mathematics, and a modern foreign language; for a science degree, English, mathematics, a foreign language, and a science.

14. That, because home-made examinations are often a means of disguising low standards, those colleges which have not adopted the examinations of the College Entrance Examination Board or a similar organization be requested to consider their advantages.

¹ If further investigation should confirm the present claim and probability that the comprehensive examinations have somewhat less prognostic value than the old type, then efforts should be made to improve the comprehensive examinations so that we may keep the other advantages which they offer. Too much that has been written on this general subject assumes that the examinations as now given are not capable of change and improvement in measurement value. Nor has sufficient attention been given to the possibility that college teaching may improve in methods and thus, conceivably, change the prognostic value of different types of entrance examinations.

15. That, as a step to the ultimate abolition of the "old plan" of entrance and to put the "new plan" on an equal footing with it, preliminary examinations be done away with. That every candidate be considered in active competition with every other candidate. And that all admissions take place within a period no longer than that between June and September.

16. That the College Entrance Examination Board be requested to make and keep all comprehensive examinations truly comprehensive in character, and to consider means of adapting them more perfectly to the needs of the high schools.

17. That intelligence or psychological tests be given, whenever practicable, to candidates, but that the results of such tests shall, in the present stage of experimentation, be used only to supplement and check the regular entrance requirements, and for guidance after admission. In no event should mere intelligence be accepted as a substitute for scholastic preparation or content examinations.

18. That all entrance conditions be abolished. If a candidate is admitted with deficiencies he should be admitted on trial but without conditions. If he is inadequately prepared he should have another year of school and be permitted to try again.

19. That special students be accepted only in unusual cases of mature applicants with a definite interest and purpose.

20. That only for good and sufficient reasons shall a student be permitted to transfer from another college, and then only into the sophomore or junior class.

21. That privileged classes of candidates, such as that of sons of alumni, shall not exist.

22. That every college establish scholarships, remission of tuition, revolving loan-funds, or other funds sufficient to insure any unusually gifted and diligent student, so long as he maintains high standing, against interruption of his college career by reason of inadequate private means. And that such awards be not granted to students of low, or even average, standing.

II

THE RETENTION AND PROMOTION OF
UNDERGRADUATES

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2. PREVIOUS THEORY AND PRACTICE

The question of the Retention and Promotion of Undergraduates is directly and intimately related to that of selection for admission. So intimate is the relation that, were it possible to achieve a method of selective admission which should serve as a perfect prognostic of later performance, the question of retention and promotion would no longer trouble us. But such infallibility of prediction can never be attained; for human nature does not always fulfill its early promise. Mental ability and attainment, which must be the chief criterion for admission, is only one of the qualities which make for the undergraduate's success; and the other elements which enter in are very difficult of appraisal. Under the best system of admission for which we can hope, some mistakes will be made, and students who have failed to realize their initial promise must be eliminated. Under existing conditions, the problem of retention and promotion is a serious one.

In the various discussions of the matter which the Committee has reviewed, there is expressed the all-but-unanimous opinion that in our colleges and universities there is a considerable body of students who are not making proper use of their advantages, and that in the interests of sound education our faculties should treat these students with greater rigor (1, 10, 12, 13, 14, 16, 23, 25, 28, 29, 38, 41, 42, 45, 50, 51, 57). The presence in the university of students who have no vital interest in the things for which the university primarily exists, who would make of it merely a pleasant place of residence, an athletic association or a social club, is in every way wrong. It is a misuse of the tax-payer's money (15, 61) or a misapplication of the funds held in trust by the endowed university. It is bad for the delinquent students themselves, who inevitably form habits of laziness and irresponsibility, if not of riotous living. Worse still, such undergraduates lessen the effectiveness of the university for their more serious fellows (34, 30). "They are the intellectual non-conductors that break the circuit, that isolate the real students from one another and so prevent the emergence of a mental current" (19).

It is the obvious duty of the college to use every effort, by the character and methods of its instruction (13, 27, 31, 36, 48, 49, 51, 57, 60), to stimulate the intellectual life of all its students, and so to reduce to a minimum the proportion of its students who fall into the category of the unfit. It is equally the duty of the college to eliminate those who, after a fair trial, refuse, or are unable, to respond to such stimulus.

The traditional method of qualifying for graduation is the satisfactory completion of a certain specified amount of academic work, quantitatively measured by the number of classroom hours given to this work. The normal requirement is fifteen hours per week during four academic years, or, since the academic year ordinarily consists of two terms, during eight college terms (59). This is often stated as a requirement of 120 "semester-hour credits." To this quantitative requirement in many institutions there is added a qualitative requirement measured in "credits for quality," the nature of which will be explained on a later page of this report. In a few institutions, graduation is made to depend also on the satisfactory passing of a final comprehensive examination in the field of major specialization.

Whether or not the requirements, both quantitative and qualitative, have been satisfactorily met, and hence whether the student is to be retained or promoted, is determined by the grades which the student has received in his several courses. These grades are stated sometimes in terms of percentages, with one hundred per cent representing ideal perfection, and fifty or sixty per cent, or even a higher percentage, representing the minimum passing grade; more often by a series of "groups," designated alphabetically, by numbers, or by such qualifying adjectives as "exceptional," "superior," "good," "inferior," the number of passing groups being most often four or five (30). So far as essential results are concerned, it makes little if any difference whether the grade is expressed in percentages or in "groups;" for in the minds of most teachers, the two modes of expression are interchangeable, the highest group representing, let us say, a percentage range of ninety to one hundred per cent. Nor, when percentages are used, does it make much difference whether the passing grade is called fifty per cent or sixty per cent or seventy per cent. There always exists in the mind of the experienced teacher a standard of attainment which represents the irreducible minimum of acceptability. To such work he will assign the minimum passing percentage, or the lowest passing "group." Other similar standards

exist in his mind for the various degrees of attainment above this minimum.

With measurements of so subjective a character, there is sure to be wide discrepancy between the standards of various teachers, and various departments (53). The extremes of variation are to some extent restrained by force of public opinion. Few teachers wish to incur the odium of being regarded as notoriously "easy," or the unpopularity of being abnormally "hard." Within a department, some degree of uniformity is often attained by action of the chairman, or through conference of the instructors concerned in a large course conducted in several sections, where disparity of standards is immediately noticeable. In some institutions, the list of grades given by each instructor, or the percentage of his grades falling in the various categories, is published (8, 30).

Two methods have been used for securing greater uniformity throughout an institution (8, 30, 53). One of these consists in a determination of the percentage of a class which may be ranked in each of the passing "groups." Thus, at Stanford (30), with four passing groups, approximately fifteen per cent are normally expected to receive the highest "group," and the same percentage the lowest "group," while the two intervening groups are supposed to contain thirty-five per cent each. Such a method seems reasonable when applied to large classes, the membership of which may be assumed to be representative of the student-body as a whole; though in that case strict logic would demand that there should also be a designated percentage of failures. Obviously the percentage cannot fairly be applied to small classes in an advanced course of the sort which is often chosen only by students of superior ability. A serious objection to this method is that it does not allow for differences in the quality of instruction. When one class is conducted by an experienced and markedly successful teacher, and another by a less experienced or less able teacher, it is not reasonable that the same percentages should apply to the grades given by both; but it is hard to conceive of any administrative procedure by which discrimination could be fairly made.

The other method is advisory rather than compulsory. At Yale, each instructor is informed of the presumable quality of the students in his class, taken as a whole, as already determined by the grades which they have received in the past. He is not given the grade of the individual student, but is told that of his students a

certain percentage has hitherto received grades in each of the several categories. He is thus at least aware of the fact if his own grades depart widely from those of his colleagues, and may be asked by an administrative officer to justify such a discrepancy.

Mention has already been made of the system of "credits for quality." Under various forms, this system is now in effect in a large number of our colleges. In essence it means that for promotion or graduation a student must not only have passed in a specified amount of academic work, but that in a certain proportion of this work he must have received grades above the minimum grade required for passing. As typical of this plan may be taken Michigan and Minnesota (59), where the requirement for graduation is one hundred and twenty semester-hours and a hundred and twenty "quality-credits." With four passing grades (A, B, C, and D), one of these credits is given for each hour passed with a grade of C, two for each hour graded B, and three for each hour of grade A. In effect, this requirement means that the *average* of a student's grades must be one grade higher than the minimum passing grade. In a few institutions (Missouri, Beloit, Johns Hopkins), an excess of these credits may serve to reduce the total quantitative requirement.

A variation of this plan, and one that commends itself to the Committee, is to require that the work of the student in the field of his specialization shall be higher than the minimum passing grade (24). Such a requirement is in effect at Princeton. With five passing "groups," a sophomore, to win promotion to the junior class, must have an average of all his work for the year of "fourth group." To graduate, a student must have during junior and senior years an average grade in the field of his specialization, including the final comprehensive examination, not lower than "third group."

3. DISCUSSION

There would seem to be abundant testimony that in all our colleges and universities there is a considerable number of students—how large a proportion of the student body, the Committee has no sufficient data to determine—who do not, either from lack of aptitude or of application, adapt themselves to the spirit and temper of an institution which exists primarily for intellectual training. Of these students the more vigorous devote their energies to athletics or to the myriad duties of "extra-curriculum activities," while the less vigorous make of the college merely a pleasant social club. Many of them,

realizing that the continuance of their life in the college demands it, meet after a fashion the minimum requirement and proceed to a degree, if not with their original classmates, then a term or a year later.

It seems to be the nearly unanimous opinion of educators, and is the opinion of this Committee, that the presence of such students is detrimental to the intellectual life of their more ambitious fellows. It is at any rate indisputable that they occupy time and attention which a college might much better expend on its more studious members. If this opinion is accepted, it follows that the number of these unsatisfactory undergraduates should be reduced to a minimum, if possible by stimulating them to satisfactory work, if not, by their elimination.

For such stimulation many things can be done; for elimination of the obstinately unfit the most obvious remedy is a more exacting standard more rigorously applied. But if it is easy to prescribe the remedy in general terms, it is far from easy to say how it shall best be administered. Fundamentally, we must see to it that in all the courses of the curriculum the demand of minimum accomplishment represents something like a real mastery of the subject. That presupposes in the teacher qualities of discipline rather than of sentimental kindness, or at least a mercy well tempered with justice, and in the officers of administration full encouragement for this sort of teaching. The burden of proof should be put squarely upon the student. In the university, as in the world outside, he should be expected to establish clearly his claim for credit. Too often the burden of proof is reversed, and the teacher who "fails" a student is called on to justify his action—to the student, to his parents, and to the administrative officers of the institution whose standards he is trying to maintain.

We must next narrow the margin of tolerance which permits a student to continue in his class despite failure in some of his work. The amount of such permitted failure, and the pains and penalties attached in the form of "probation" or other disabilities vary from one institution to another. There is usually a somewhat complicated body of law on the subject. This Committee has not attempted to study the intricacies of the various regulations. Such a study would not be very profitable unless one could know how in each institution the regulations are interpreted, and what exceptions are in practice made to the written law. It is not, however, unusual that a student

is allowed to continue with his class "on probation," with a chance to recover full standing, when his failures in a year amount to as much as two-fifths of his year's work. That is a measure of charity which a young man or woman will hardly hope to find in a business office or a factory.

Having with all due care selected a student for admission, the college is under obligation to give him a fair trial. Save in cases of gross neglect or incompetence, such as failure in half or more of the first term's work, the period of trial should probably be an entire academic year. A method of generous admission followed by wholesale elimination at the end of the first semester is in every way wasteful. It is uneconomical for the institution, and is inconsiderate of the interests of the student. But by the end of the year it should be the obligation of the student to prove his right to continue. For with limited facilities, the retention of a halting student is likely to mean the rejection of a more promising candidate for admission. There is no justification for the prevailing idea that a student once admitted has a vested right to remain, a right forfeited only when he is hopelessly unsuccessful. A member once admitted to a club has such a right. However uncongenial he may prove, he can be deprived of membership only on grave cause duly shown. But a university is not a social club, but, in theory at least, a place of active intellectual business. It should be made clear to the student, and to his parents, that he is admitted for a limited period of time, and that at the end of such a period he will be readmitted only if he has established for himself a clear affirmative case. As things are now, he is usually eliminated only when his case is strongly negative.

In the portion of this report which deals with the problem of admission the Committee has recommended that "the process of admission be frankly one of selecting the most promising material available." The same considerations, there discussed in full, which led the Committee to that conclusion now lead it to the belief that retention and promotion should also be frankly selective and competitive.

The existing methods of retention and promotion are already basically competitive. All the systems of grading in the individual courses, whether expressed in percentages or in "groups," are at bottom comparative. For the measurement of a student's accomplishment no absolute and objective standard is possible. The subjective standard in the teacher's mind has been built up on the

basis of the actual performance of his students, and on this basis it is sure to undergo constant revision. The day-by-day requirements of a course, and the examination set at its close, are gauged with a view to the probable performance of the students concerned. A set of examination books is read and graded with an eye to the actual performance. If, after reading a dozen papers, the teacher finds that his examination has turned out to be too "easy" or too "hard," he revises his valuations accordingly. All attempts to standardize the gradings of various teachers in an institution, such as the provision that a certain percentage of the grades given should fall in each of a number of "groups" or categories, rest obviously on the principle of competition.

So, too, with the body of regulations which determine in any institution the degree of failure which shall result in demoting or "dropping" a student. It is safe to assume that these regulations have been established, and from time to time revised, in the light of the percentage of academic mortality which their application will entail.

But our existing practice, essentially competitive though it be, lacks the element of incentive which comes from avowed and open competition. To the student the standard which he must attain seems to be a fixed one. He often calculates—not always with success—just how much, or how little, he must do in order to meet it. If he fails in a course, he often questions the justice of the verdict that has been passed against him. If he is "dropped" for deficiencies, he leaves sometimes with a sense of injustice, usually with the feeling that he has been punished and disgraced. But the student understands a competition, open and avowed, with no favors shown. It is the method on which he conducts the campus activities which are under his own control. He works hard to win, but accepts defeat like a "good loser."

The Committee believes that the less deserving undergraduates in our universities can best be eliminated, and that at the same time an effective stimulus can be given to the whole undergraduate body, by applying at the end of the sophomore year a process of competitive selection analogous to that which the Committee recommends for admission. Having determined the number of freshmen which it is prepared to admit, a university could then announce that it would admit to the junior class a specified smaller number of students. The precise ratio which the number of juniors should bear to the number of freshmen would doubtless vary from one institution to another in

accordance with the particular conditions of each, such for example as the normal shrinkage from voluntary withdrawals; but the Committee has in mind a ratio which should be not less than fifty per cent and not greater than seventy-five per cent. The process of selection would be to some extent a continuous one.

The grossly unfit would be weeded out as they are now at the end of each semester; but with careful selection at entrance and the continued stimulus of competition, the number of these casualties by the way would probably be fewer than at present. For the sake of dealing with concrete figures, let us suppose that the number of freshmen to be admitted is eight hundred, and the determined number to be admitted to the junior class is five hundred. It might well happen that at the close of sophomore year some six hundred and seventy-five would be competing for the five hundred vacancies. The selection would be made on the basis of an intelligent and careful scrutiny of the scholastic records made during freshman and sophomore years, a scrutiny that might well prefer a candidate who had shown brilliant promise in certain studies over one of his fellows with a somewhat higher general average made up merely of respectable mediocrities. The details of such a scrutiny would require much careful thought and planning; but the conditions at one university and another vary so greatly that it would not be profitable to attempt in this report any detailed suggestions. The Committee believes strongly, however, that the scholastic record, intelligently interpreted, should be the sole basis of judgment. Qualities of character and personality are so imponderable that any attempt to bring these values into the reckoning—except as they have contributed to successful scholastic accomplishment—would defeat the primary purpose of the recommendation.

This process of revaluation and selection would most naturally come at the end of sophomore year, since in most of our colleges there is a differentiation between the work of the first two and the last two years. In the earlier years a student is usually concerned with more general courses distributed among a variety of subjects. In the last two years, his courses are normally more advanced and to a large extent specialized in a single subject or a group of related subjects. The work of the earlier years is more like that of the high school; that of the later years is more of the character of the professional or graduate school. At the end of sophomore year the student has normally reached an age and a degree of educational

advancement similar to that of the graduate of the German gymnasium or the French lyceum. Many of our students, who may profit from the work of the first two years, lack either the ability or the ambition to do the more advanced work of junior and senior years. Students who have met the minimum requirement of the first two years, but who have failed in competition with their fellows to win promotion into the upper college, should receive a certificate of honorable dismissal. They should have full standing with their classmates in organizations of alumni. They should in no way be made to feel that they are sent away in disgrace. With such an arrangement widely recognized and understood, many boys and girls, not of markedly intellectual bent, would no doubt plan from the beginning to take only the two years' course.

With a system under which promotion into the upper college should be determined competitively on the basis of scholastic records, it would be important to secure the greatest possible uniformity in the grading of the various teachers and various departments. But the obvious need for such uniformity would be a powerful influence toward the securing of it. Administrative pressure, now sometimes exerted in the direction of leniency, would turn against the teacher whose generous gradings tended to give his students an unfair advantage in the race. The notoriously easy course could no longer be tolerated. And the overkindly teacher himself could perhaps be made to see that his mercy was involving active injustice.

The Committee believes that the principle of competitive selection applied to the problem of retention and promotion in some such manner as here suggested would act as a strong stimulus to intellectual achievement, a stimulus which would operate upon a large part of the student-body.

4. RECOMMENDATIONS

The Committee recommends:

1. That it should be the policy of every college to admit a student for a limited period of time only, and to expect that at the end of that period the student who desires to continue shall have established a clear affirmative case for his retention and promotion.
2. That in order to win promotion a student should have in a substantial portion of his work grades higher than the minimum grade required for passing in an individual course.
3. That each college should take steps to secure greater uniformity in the grading of its various courses.

4. That promotion from the sophomore class into the work of the upper-class years should be determined on the principle of competitive selection, with the result that students who have not shown superior achievement and promise in the first two years shall not continue in the college.

For the Committee,

HAROLD H. BENDER, Chairman of the Sub-Committee

ANNA A. CUTLER

OLIVE C. HAZLETT

ROBERT K. ROOT

MEMBERSHIP

MEMBERS ELECTED

The Committee on Admission announces the election of one hundred and eighty-six members, as follows:

Arizona, F. L. Ransome; **Carroll College**, R. L. Nanz; **University of Cincinnati**, Helen L. Coops, M. L. Ferson, J. S. Fowler, Leonora Neuffer, L. M. Nikoloff; **Coe College**, L. E. Garwood; **Colorado College**, C. H. Sisam; **University of Colorado**, J. W. Broxon, J. G. Johnson, Irene P. McKeehan; **Cornell College**, M. Lillian Smedley; **Cornell University**, A. J. Heinicke; **Dartmouth College**, E. M. Bailor, E. H. Booth, R. H. Bowen, H. A. Bradley, F. E. Brown, H. R. Bruce, H. G. Coar, R. P. Holben, R. E. Langer, S. G. Patterson, L. D. Pearson, J. P. Poole, K. A. Robinson, W. A. Robinson, J. C. Roulé, C. L. Stone, R. C. Syvertsen, J. W. Tanch, W. E. Utterback, H. E. Washburn, C. E. Wilder; **Denison University**, Alma B. Skinner; **Florida State College for Women**, Herman Kurz; **George Washington University**, Minna C. Denton; **Gettysburg College**, Charles Gauger; **Harvard University**, Arthur Burkhard, Zechariah Chafee, Jr., W. C. Greene, T. L. Hood, Taylor Starck; **Hillsdale College**, George E. Spieth; **Hunter College**, Elizabeth Collier; **University of Kentucky**, H. B. Holmes, H. J. Scarborough, Wellington Patrick; **Macalester College**, H. S. Alexander, A. W. Anderson, Augusta H. Chalfant, G. W. Davis, Margaret M. Doty, Nina P. Gunnison, J. P. Hall, W. J. Himmel, R. U. Jones, D. N. Kingery, Mathilda Mathisen, James Wallace, O. T. Walter, Grace B. Whitridge; **University of Maine**, Frances E. Arnold, B. F. Brann, Evelyn Buchan, Marion S. Buzzell, Eduardo Gomez-Duran, M. F. Jordan, Alvalyn E. Woodward; **Miami University**, D. S. Robinson; **Mississippi State College for Women**, Lawrence Painter; **University of Missouri**, Mary J. Guthrie, G. E. Wahlin, J. S. Williams; **Morningside College**, L. M. Jones, F. W. Schneider, S. C. Steinbrenner, P. R. Stevick, R. N. Van Horne; **University of Nevada**, Jeanne E. Wier; **University of North Carolina**, A. C. Howell, E. R. Mosher, W. F. Thrall; **Occidental College**, W. G. Bell; **Oklahoma Agricultural and Mechanical College**, B. C. Dyess; **University of Oklahoma**, Gladys A. Barnes, Ellsworth Callings, J. H. Leek, Leonard Logan, J. W. Marrs, J. R. Nielsen, Grace E. Ray, Duane Rollen, W. A. Schaper, Walter Thompson, W. A. Willibrand; **University of Oregon**, D. G. Barnes, H. R. Crosland, Rosalia P. Cuevas, J. S.

Evans, Andrew Fish, J. J. Landsbury, Olaf Larsell, H. B. Myers, H. E. Rosson, H. A. Scott, H. J. Sears, Harriet W. Thomson, Earl Widmer; **University of Pittsburgh**, Blossom L. Henry, P. W. Hutson, A. J. Murphy, Mary E. Shipman, R. E. Turner, A. K. Waltz, G. A. Yoakam; **Purdue University**, Gertrude Bilhuber, J. L. Bray, Laura J. Cheney, J. J. Davis, C. F. Gobble, C. M. James, E. J. Kohl, E. B. Mains, A. R. Middleton, Ida Belle Post, J. A. Sauers, George Spitzer, Ammon Swope, O. P. Terry; **Saint Stephen's College**, E. N. Voorhees, W. W. Whitelock; **South Dakota State College**, C. A. Bonnen, H. S. Carter; **Stanford University**, C. L. Alsberg, Frederick Anderson, C. F. Brand, J. B. Canning, J. E. Coover, P. E. Davidson, W. H. Davis, H. H. Henline, Yamato Ichihashi, A. G. Kennedy, E. G. Mears, Edith R. Mirrieless, L. B. Reynolds, J. B. Sears, S. A. Smith, H. W. Stebbins; **University of Southern California**, J. Frank Smith; **Temple University**, H. A. Cochran, W. J. Douglas, M. A. Perry, Stuart Robertson, Lorin Stuckey; **Toledo University**, J. S. Gould; **Tulane University**, W. P. Angel, G. P. Wyckoff; **Washington State College**, J. S. Cole, H. C. Cooley, H. W. Cordell, C. I. Erickson, C. C. Johnson, P. P. Kies, C. A. Langworthy, Carl Mauelshagen, Helen M. Richardson, Hazelton Spencer, W. L. Wilson; **Washington University**, F. M. Debatin, Lawrence Hill, P. L. Whitely; **University of Washington**, Martha E. Dresslar, D. D. Griffith, Glenn Hughes, W. F. Isaacs, W. D. Moriarty, H. Mullemeister, Jennie Rowntree; **Western Reserve University**, C. P. Gould, F. C. Waite; **Wittenberg College**, W. K. Gotwald; **University of Wyoming**, R. S. Uhrbrock; **Yale University**, W. C. Trow.

NOMINATIONS FOR MEMBERSHIP

The following seventy nominations are printed as provided under Article IV of the Constitution. Objection to any nominee may be addressed to the Secretary, H. W. Tyler, Cambridge, Mass., or to the Chairman of the Committee on Admissions¹ and will be considered by the Committee if received before May 1, 1926.

The Committee on Admissions consists of F. A. Saunders (Harvard), *Chairman*, W. C. Allee (Chicago), Florence Bascom (Bryn Mawr), A. L. Bouton (New York), J. Q. Dealey (Brown), E. C. Hinsdale (Mt. Holyoke), A. L. Keith (South Dakota), G. H. Marx (Stanford), F. C. Woodward (Chicago).

French S. E. Amos (Government), Oklahoma
Leah Allen (Astronomy), Wellesley
Hayes Baker-Crothers (History), Maryland
Cesa Barja (Spanish), California, So. Br.
A. D. Beeler (History), Butler
David K. Bjork (History), California, So. Br.
Henry Herbert Boom (Chemistry), Temple
Olin B. Chamberlain (Biology), Charleston
G. M. Conwell (Mathematics), New York State College
Alfred M. Dame (Greek), Washington and Jefferson
Helen Davis (Botany), Wellesley
Winfred C. Decker (German), New York State College
André Dreux (French), St. Teresa
W. R. Duffey (Speech), Marquette
D. H. Dunham (Biology), Purdue
John I. Fanz (Pathology), Temple
H. A. Foster (History), Missouri State Teachers College
John G. Fowlkes (Education), Wisconsin
Clementene Friola (Fine Arts), St. Teresa
J. G. Fucilla (Romance Languages), Butler
A. L. Geisenheine (Economics), Charleston
C. A. Graeser (Romance Languages), Charleston
W. H. Gran (Physics), Western College
F. W. Grose (Social Science), St. Teresa
Erwin G. Gudde (German), California
C. F. Hale (Physics), New York State College

¹ Nominations should in all cases be presented through the Secretary, H. W. Tyler, 222 Charles River Road, Cambridge, Mass.

Richard Hamer (Physics), Pittsburgh
Elizabeth O. Hassenzahl (Biology), Purdue
H. W. Hastings (English), New York State College
Paul L. Haworth (History), Butler
Gordon Hendrickson (Education), Cincinnati
J. Garrett Hickey (Physiology), Temple
C. R. Hicks (Political Science), Nevada
Pleasant R. Hightower (Education), Butler
G. P. Jackson (German), Vanderbilt
Oscar L. Keith (Romance Languages), South Carolina
R. A. Kent (Education), Northwestern
E. T. Krueger (Sociology), Vanderbilt
A. A. Levine (Chemistry), Washington State
A. W. Lindsey (Zoology), Denison
Juna M. Lutz (Mathematics), Butler
W. O. Lynch (History), Indiana
John M. Maguire (Law), Harvard
Anna E. Many (Mathematics), Newcomb (Tulane)
G. W. Martin (Biology), Washington and Jefferson
M. A. Martin (Psychology), Tulane
P. G. Moorhead (Latin), Charleston
V. F. Morse (Mathematics), Occidental
J. H. Musser (Medical), Tulane
F. A. Nagley (Marketing), Southern California
R. F. Nichols (History), Pennsylvania
J. H. Nunemaker (Modern Languages), Denison
Louise Overraker (History), Wellesley
T. S. Ramsey (Chemistry), California, So. Br.
Penfield Roberts (English), Mass. Inst. Tech.
S. A. Rifenburgh (Biology), Purdue
Thurston H. Ross (Commerce), Southern California
Melvin A. Saylor (Medicine), Temple
Daniel F. Sheehan (English), St. Teresa
W. L. Slifer (History), Butler
J. F. Sly (Political Science), California, So. Br.
R. H. Snow (English), Washington and Jefferson
Vivienne R. McClatchy (Psychology), Florida State College
A. W. Stillians (Medicine), Northwestern
Marten tenHoor (Philosophy), Tulane
N. P. Vlachos (Classical Languages), Temple

W. J. Wagner (Mathematics), Allegheny
C. E. Williams (Law), Washington and Lee
Florence E. Winchell (Home Economics), New York State College
C. J. Zufall (Pharmacy), Purdue